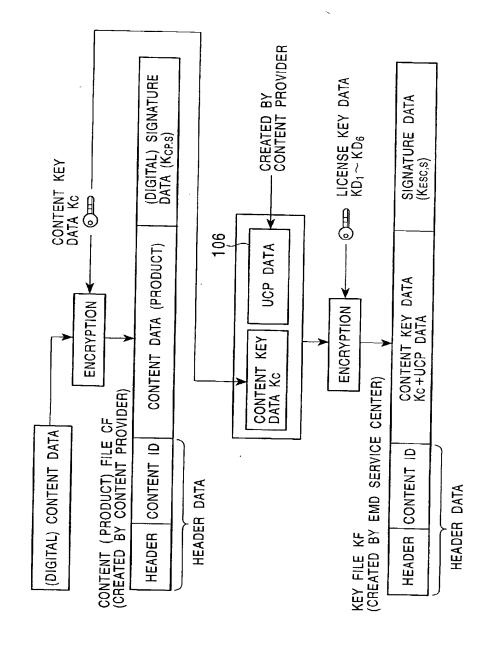
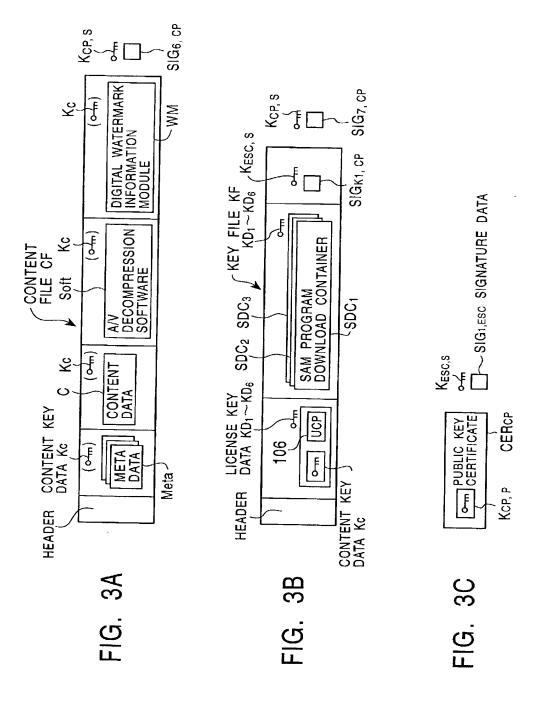
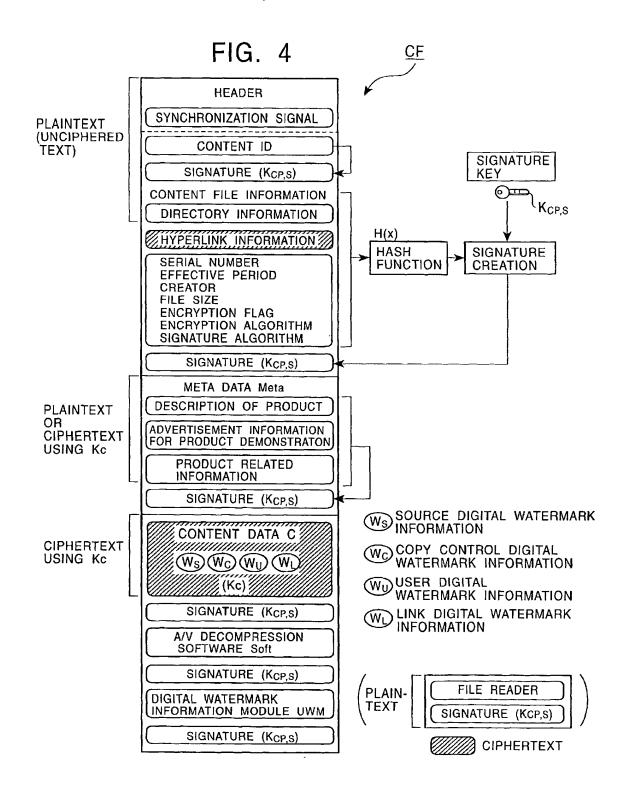


FIG. 2





THE RESERVENCE OF THE PARTY OF



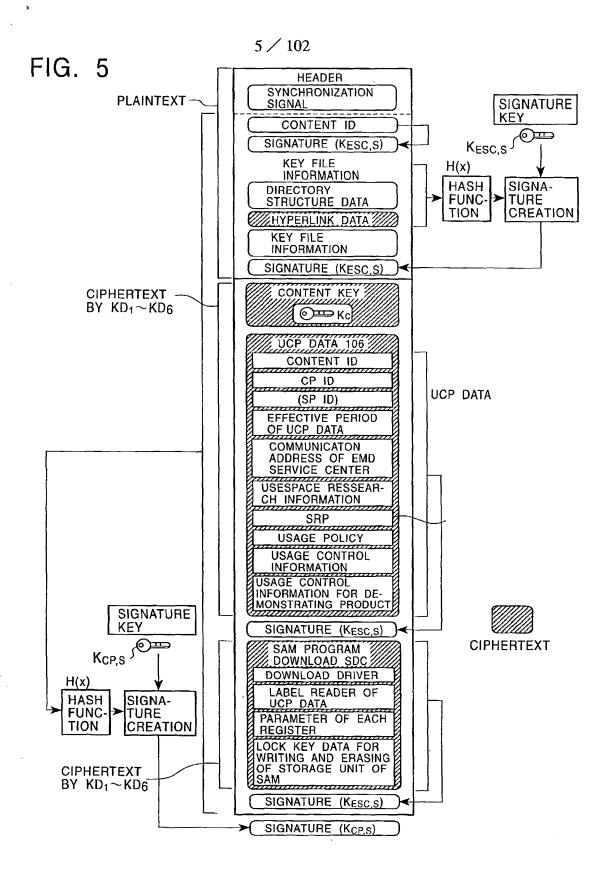


FIG. 6

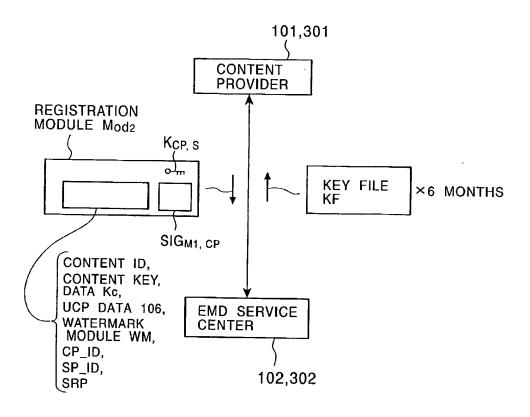
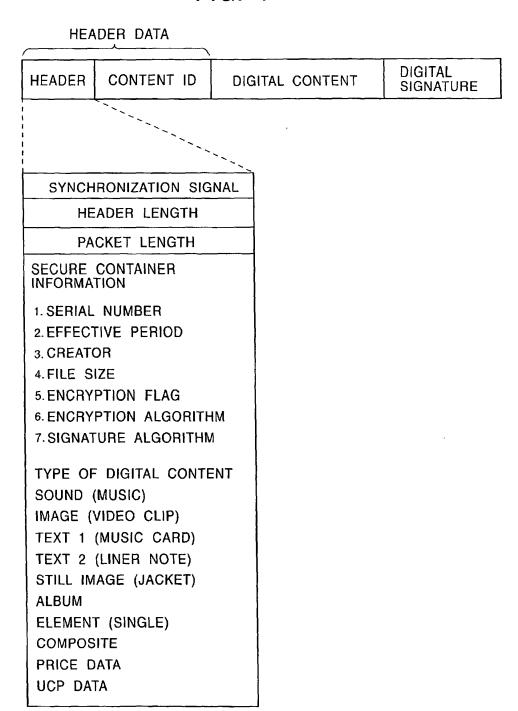


FIG. 7



#### CONTENT ID

CONTENT ID GLOBALLY UNIQUE CONTROL ID NUMBER AREA CODE (COUNTRY AND AREA) INFORMATION 1 OF DIGITAL CONTENT TYPE (WORKS) MOVIE MUSIC ART LITERATURE AND OTHERS INFORMATION 2 OF DIGITAL CONTENT TYPE (WORKS) ORIGINAL SECONDARY USE EDITED WORKS COPYRIGHT HOLDER **INFORMATION** NEIGHBORING RIGHT HOLDER INFORMATION **AUTHOR INFORMATION** YEAR, MONTH, DATE OF CONTENT CREATED INFORMATION 1 OF DIGITAL CONTENT TYPE (FORMAT)
MOVING PICTURE STILL IMAGE SOUND AND OTHERS PRIVATE KEY K<sub>ESC, S</sub> OF EMD SERVICE INFORMATION 2 OF DIGITAL SIGNATURE CONTENT TYPE (FORMAT) SIGNAL SOURCE KEY CENTER  $\odot$ (SIGNATORY) -COMPRESSION METHOD CREATOR INFORMATION H(x)HASH SIGNATURE FREE AREA FUNCTION CREATION SIGNATURE

CIPHERTEXT OR UNCIPHERED TEXT BY Kc

FIG. 9

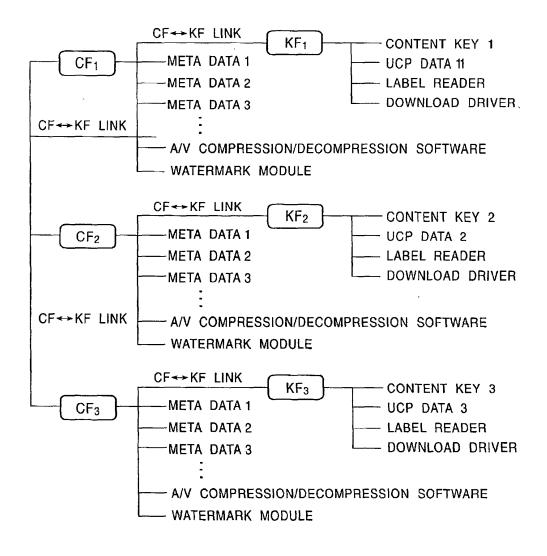


FIG. 10

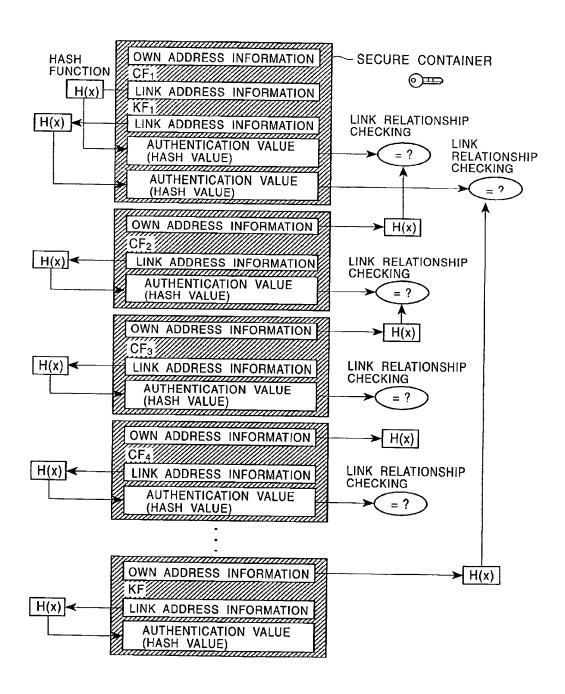


FIG. 11

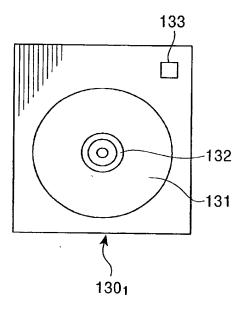


FIG. 12

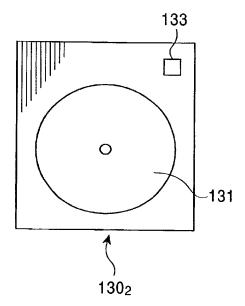


FIG. 13

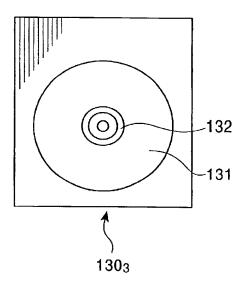


FIG. 14

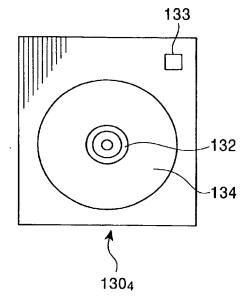


FIG. 15

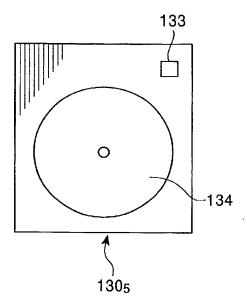
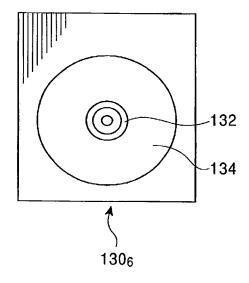
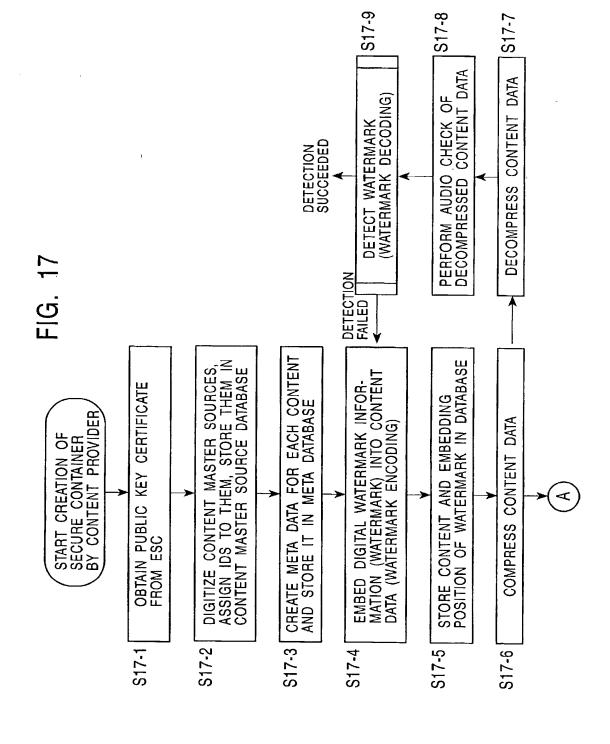


FIG. 16





And hand has been seen that the seen and the seen seen seen that the

FIG. 18

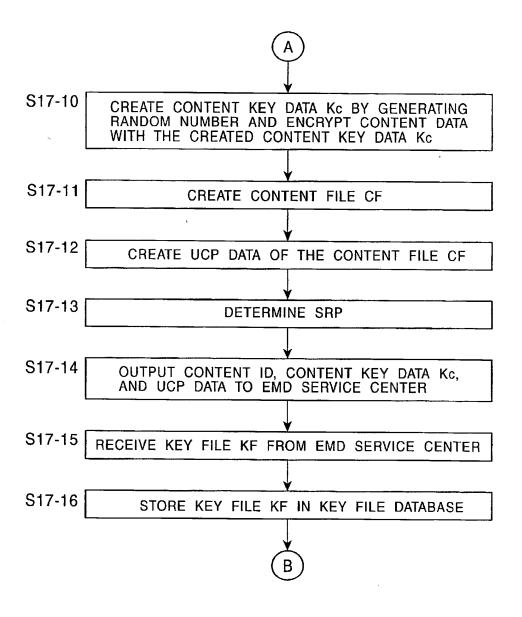
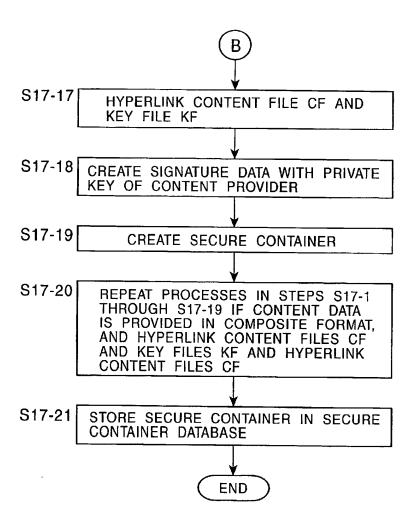


FIG. 19



SUPPLY LICENSE KEY DATA TO CONTENT PROVIDER AND SAM

ISSUE PUBLIC KEY CERTIFICATE DATA CER<sub>CP</sub>, CER<sub>SAM1</sub> THROUGH CER<sub>SAM4</sub>

CREATE KEY FILE KF

PERFORM PAYMENT SETTLEMENT (PROFIT DISTRIBUTION) BASED ON USAGE LOG DATA

ESC\_CONTENT ID CP\_CONTENT ID (SP\_CONTENT ID) USER ID USER INFORMATION  $\mathsf{SAM\_ID}$  $HNG\_ID$ DISCOUNT INFORMATION TRACING INFORMATION (PRICE DATA PT) CP\_ID (SP\_ID) SERVICE PROVIDER (PORTAL) ID HARDWARE PROVIDER MEDIA\_ID COMPONENT ID IDENTIFIER OF LICENSE OWNER LH\_ID ESC\_ID

FIG. 22

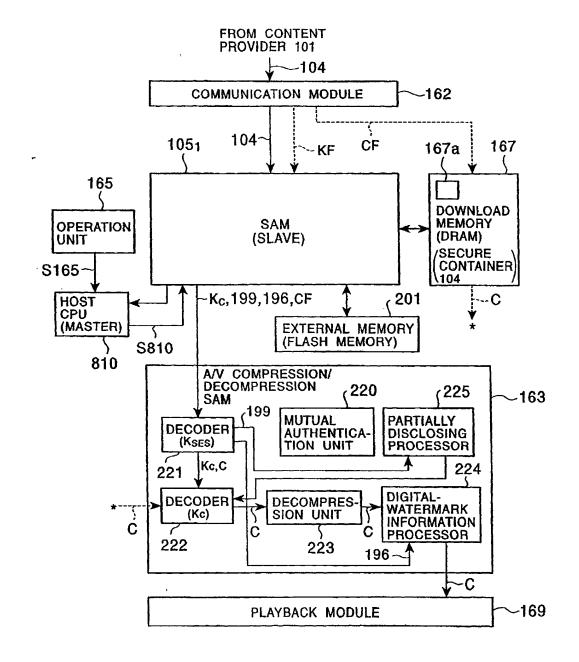
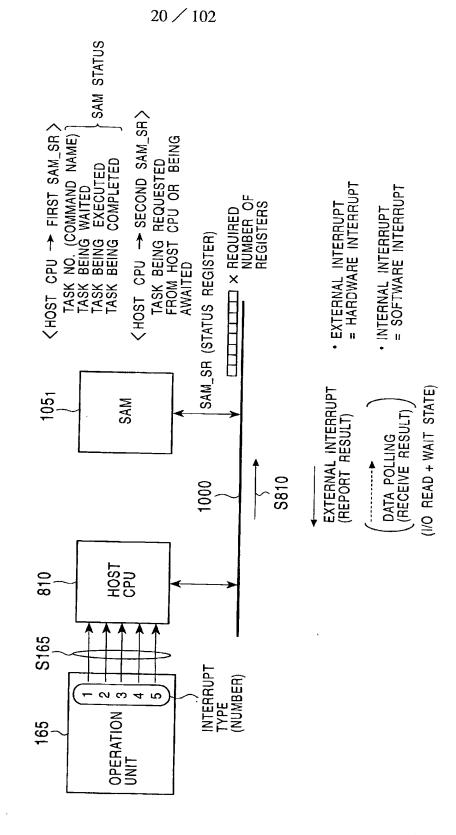


FIG. 23



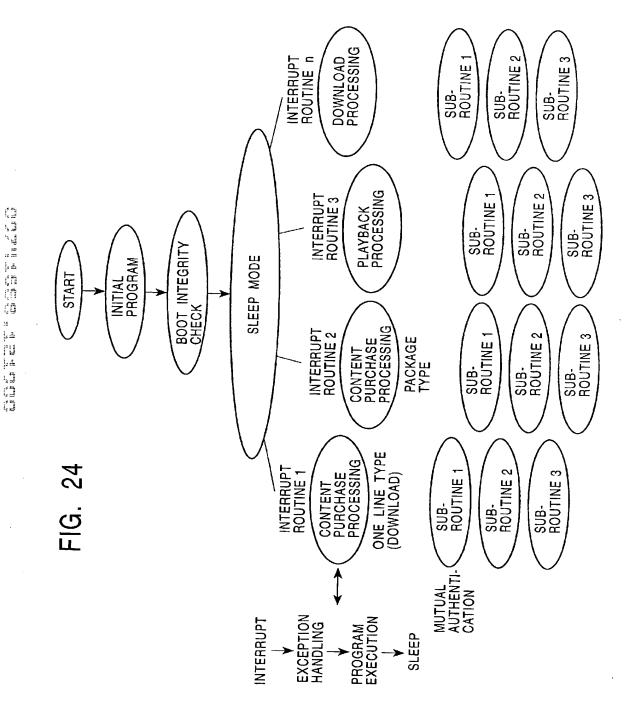


FIG. 25

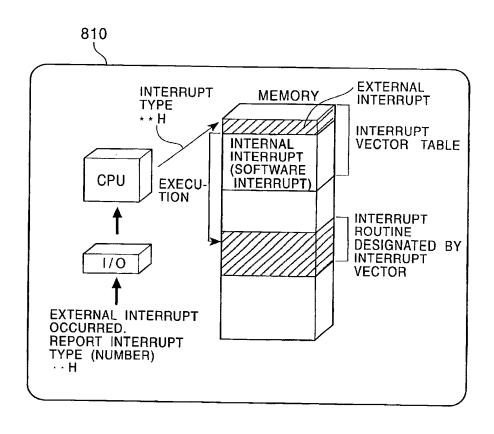


FIG. 26

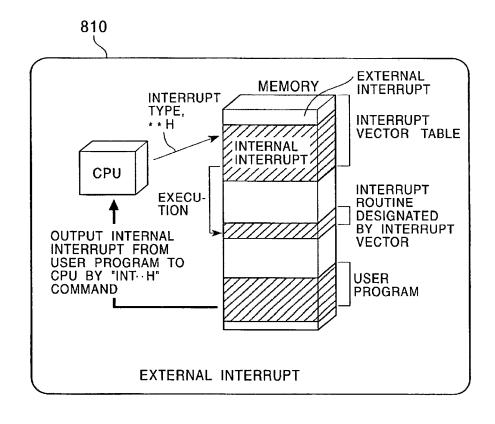
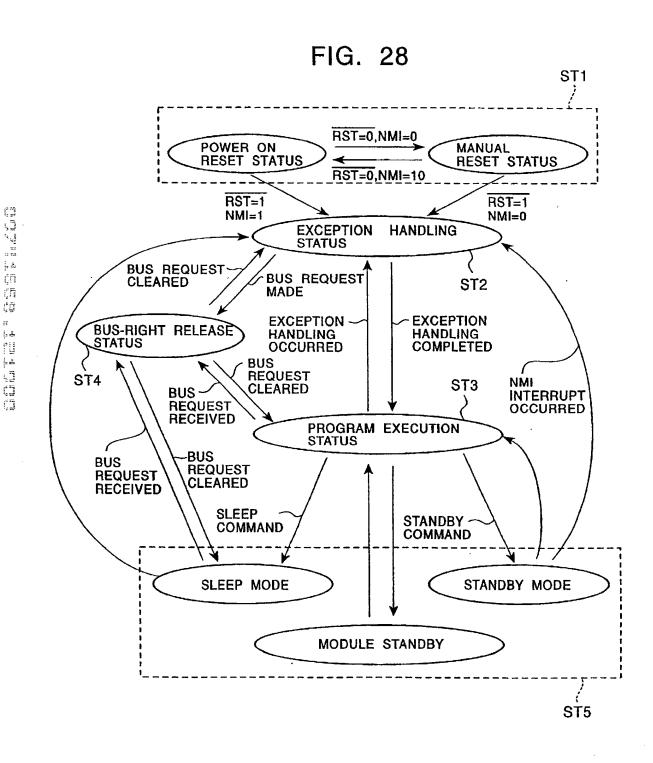
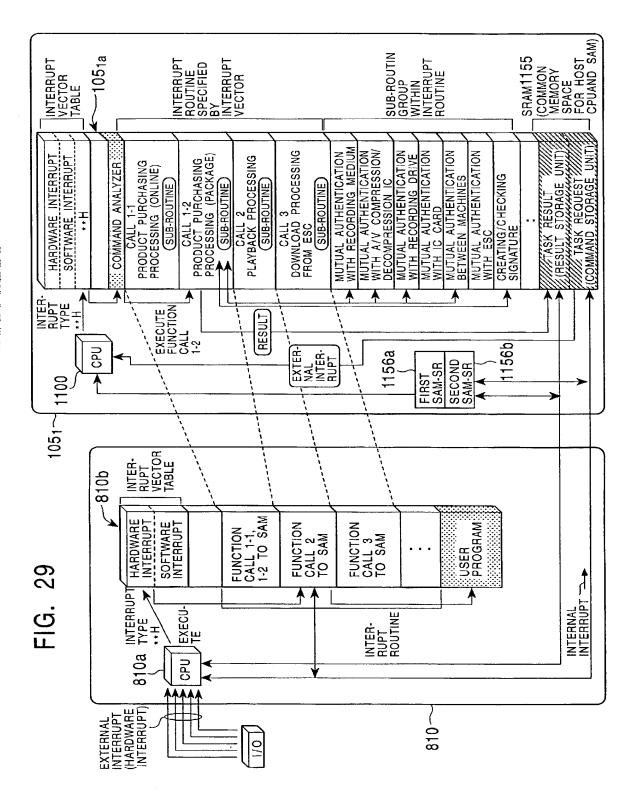


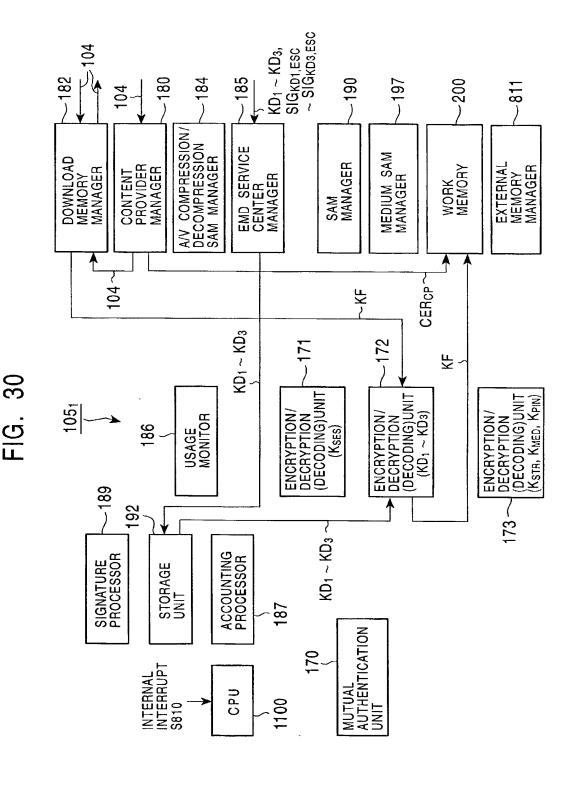
FIG. 27 810 **MEMORY** EXTERNAL INTERRUPT INTERRUPT **INTERRUPT** INTERNAL INTERRUPT **VECTOR** TYPE, TABLE 21H 21H CPU COMMAND ANALYZER 1. PROCESSING A **EXECUTION INTERRUPT** OF ROUTINE **FUNCTION 3** SPECIFIED BY PROCESSING B **INTERRUPT** 3. PROCESSING C **VECTOR** COMMAND **ANALYZER SOFTWARE** USER **INTERRUPT** PROGRAM (INTERNAL INTERRUPT) SET FUNCTION -MOV 00,3 SET VARIOUS -MOV △△,0200M ~A **PARAMETERS** EXECUTE FUNCTION CALL -- INT 21H



11





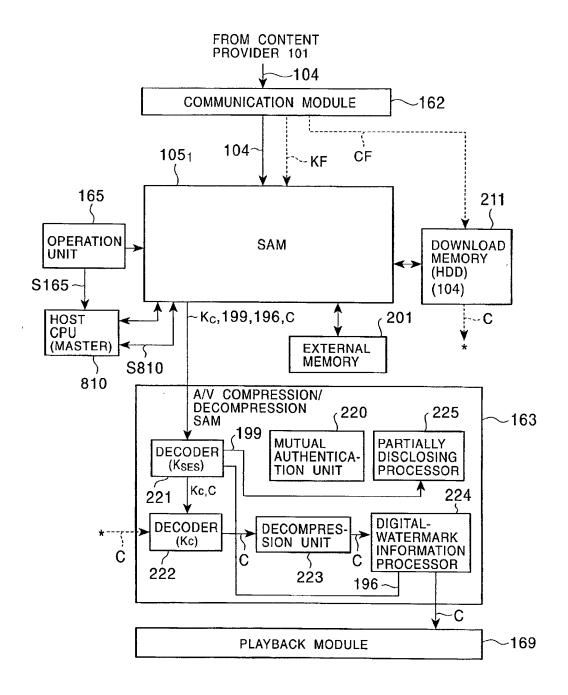


USAGE LOG DATA 108 SAM REGISTRATION LIST (KF: WHEN USING DOWNLOAD MEMORY WITHOUT SAM)

#### FIG.32

CONTENT KEY DATA Kc UCP DATA 106 LOCK KEY DATA KLOC OF STORAGE UNIT 192 PUBLIC KEY CERTIFIDATE CERCP OF CONTENT PROVIDER UCS DATA 166 SAM PROGRAM DOWNLOAD CONTAINERS  $SDC_1 \sim SDC_3$ 

FIG. 33



*	SAM_ID	
	User_ID	
	PASSWORD	
*	HNG_ID	O-m 1/1/99 ~ 1/31/99
	INFORMATION REFERENCE ID	O-m 2/1/99 ~ 2/28/99
	SAM REGISTRATION LIST	3/1/99~3/31/99
	REVOCATION LIST (MACHINES	<b>(</b>
	AND RECORDING MEDIA)	
		$KD_1 \sim KD_3$ (64 BITS)
	(STORKAGE KEY K <sub>STR</sub> O-m)	
*	MAC KEY K <sub>MAC</sub> (O-m)	
*	PUBLIC KEY OF ROOT CA KECA	
*	ESC PUBLIC KEY	
•	(160BITS →192BITS) [O-m]	
	SOURCE KEY DATA FOR AUTHENTICATION WITH DRIVING SAM & PUBLIC KEY CERTIFICATE OF DRIVING SAM (X,509)	
	*** SAM PRIVATE KEY-PUBLIC KEY ***  CERSAM1	
	SAM PRIVATE KEY ြ————————————————————————————————————	MI,S KSAMI,P OLINSAMI
		SAM
	CERTIFICATE (X, 509)	PUBLIC KEY SIG <sub>22,ESC</sub>
*	SOURCE KEY DATA	
	FOR AUTHENTICATON WITH A/V COMPRESSION/	KEY CRYPTOSYSTEM)
	DECOMPRESSION SAM (40~64)	BITS)
*	SOURCE KEY DATA FOR AUTHENTICATON	(WHEN USING COMMON KEY CRYPTOSYSTEM)
	WITH MEDIUM SAM	MEDSAM CERMEDSAM KESC, S
	OF MEDIUM SAM (X.509)	PUBLIC KEY OF MEDIUM SAM
	SENT FROM MEDIUM SAM TO SAM BY MUTUAL AUTHENTICATION	
	(160 ~ 192 BITS)	
*	SIGNAL SOURCE WHICH CAN BE HANDLED	
*	RIGHTS PROCESSING DATA ENTITY ID WHICH RECEIVES PROFITS	
	CITITI ID WINOII RECEIVED PROFIIS	

FIG. 35

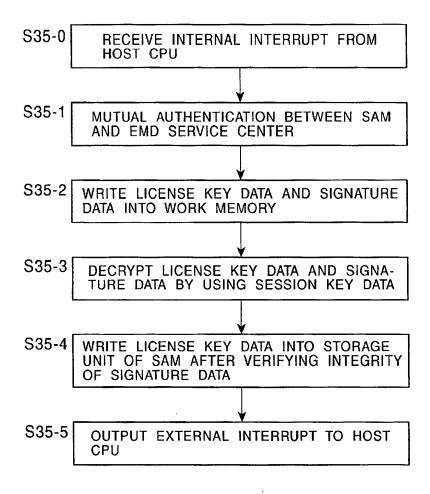
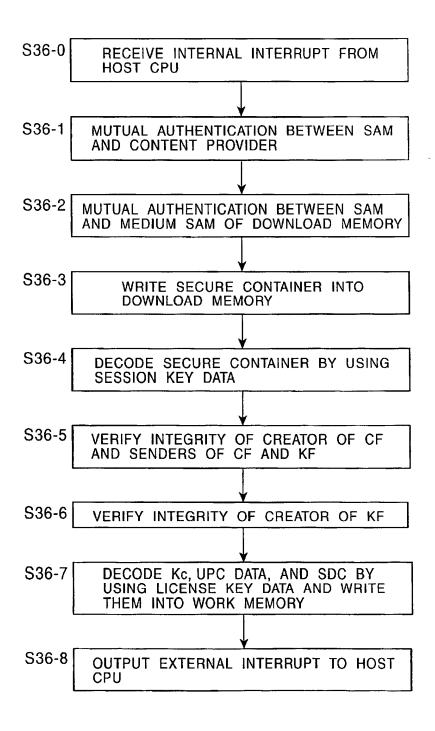
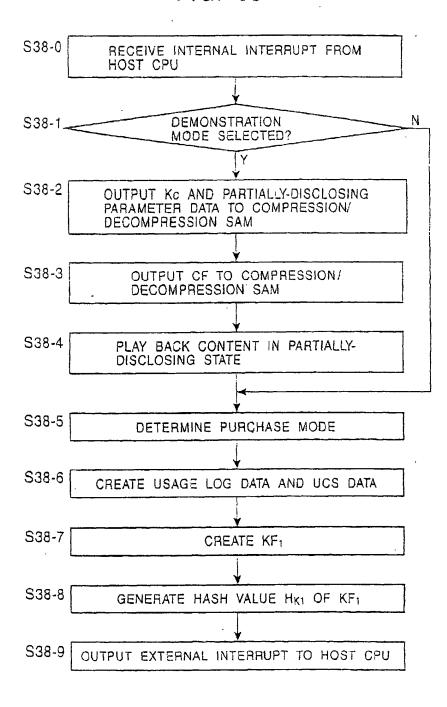


FIG. 36



34 / 102

FIG. 38



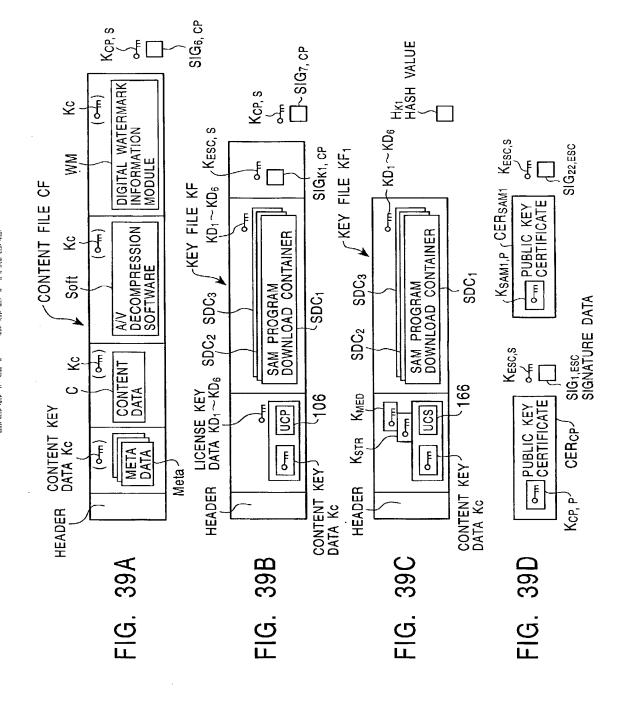


FIG. 40

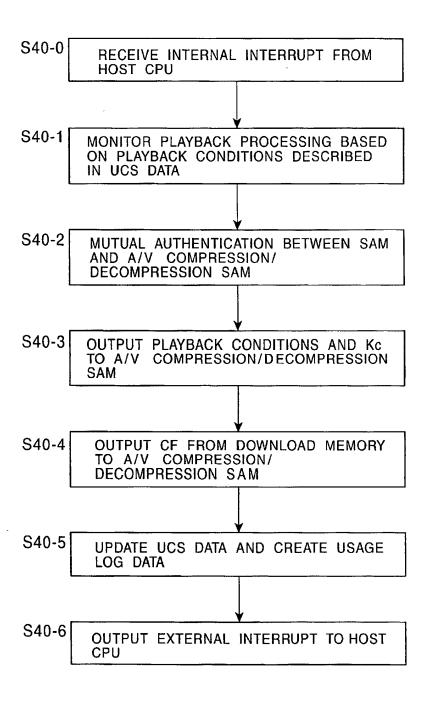
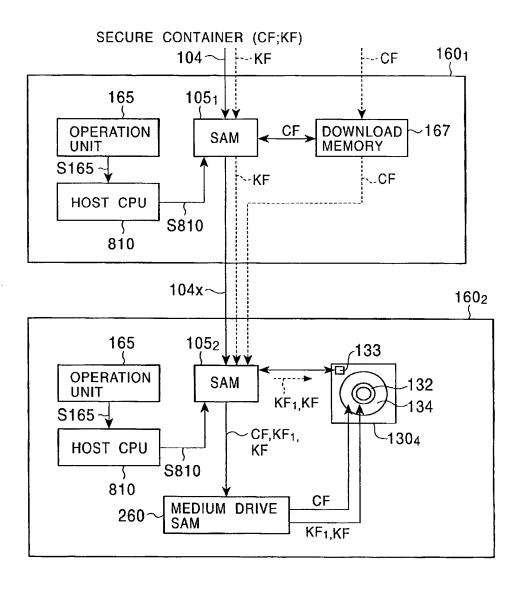


FIG. 41





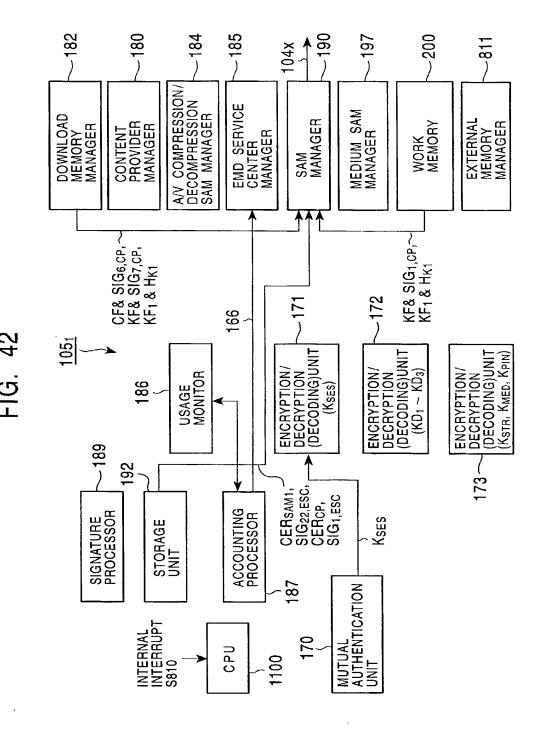
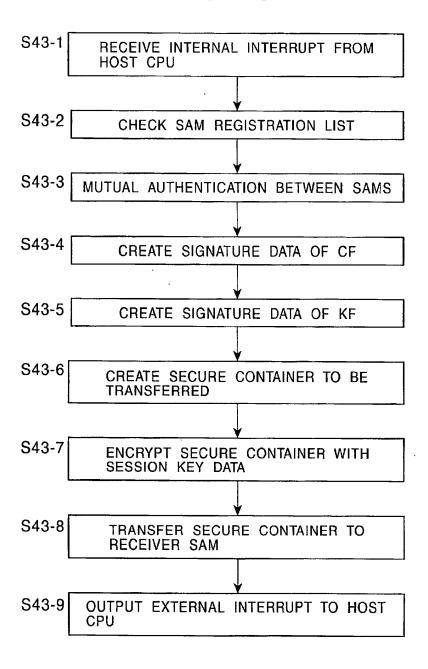
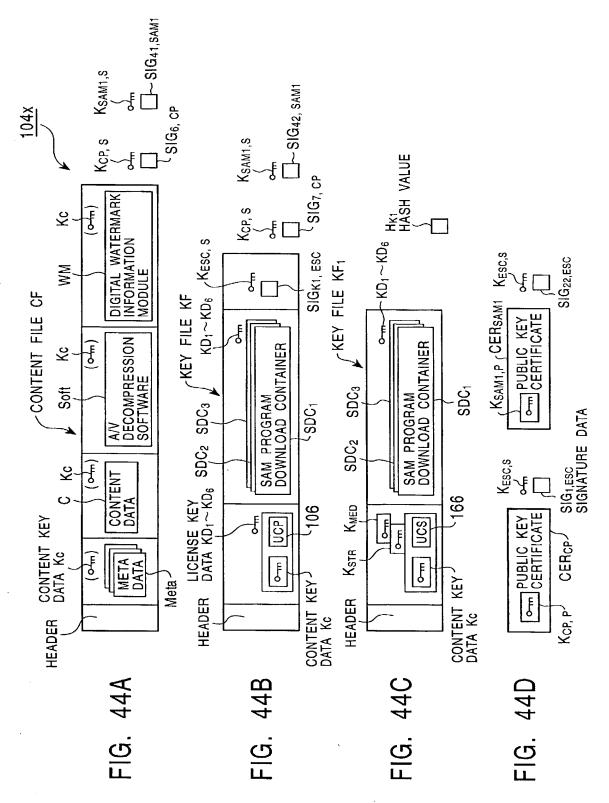
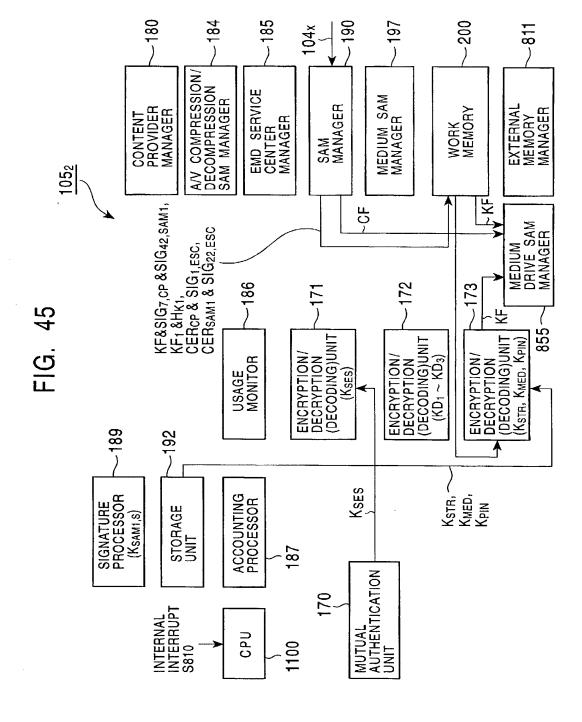


FIG. 43







The first and the first five states and the first and the

FIG. 46

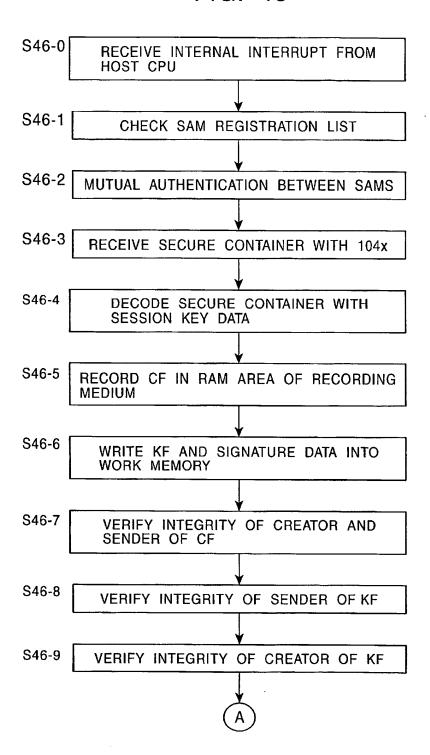
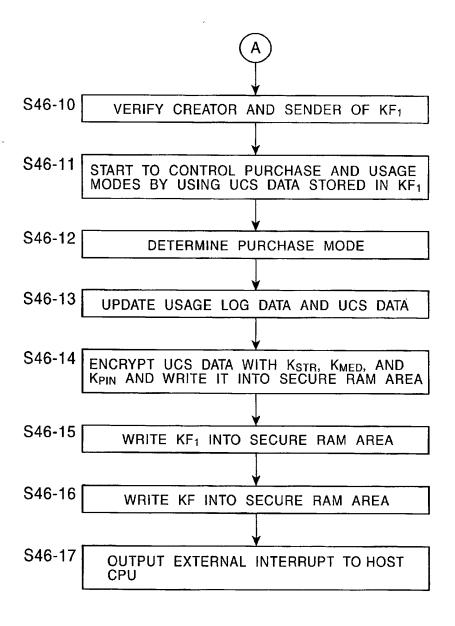
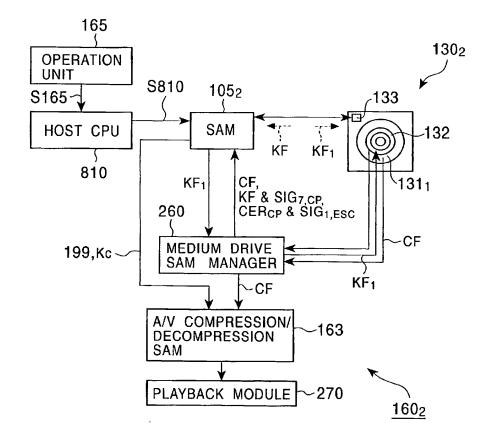


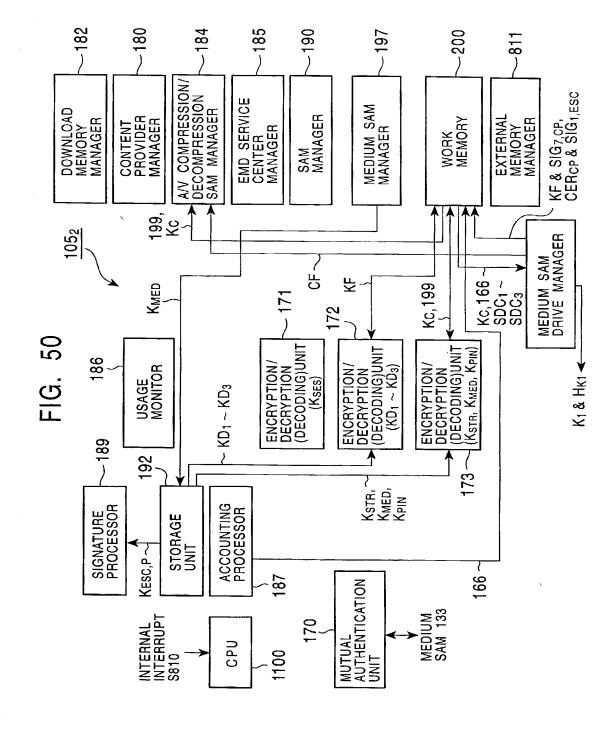
FIG. 47



The service of the se

FIG. 49





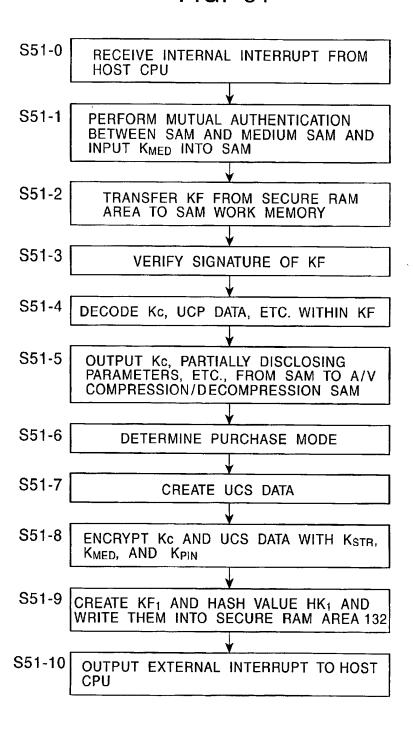
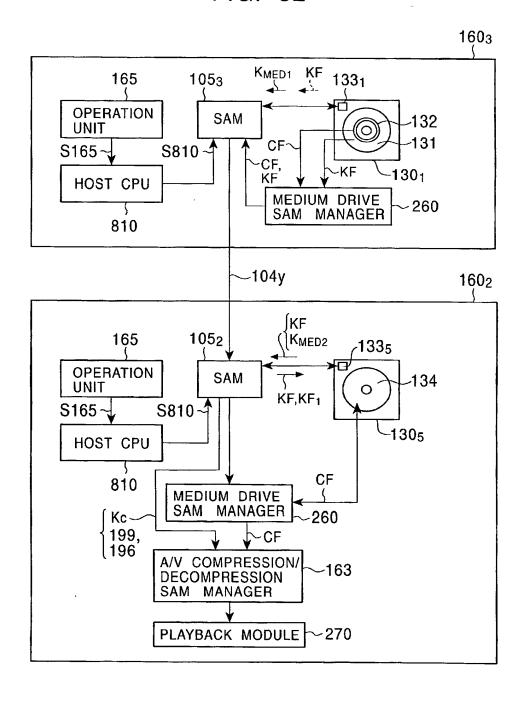
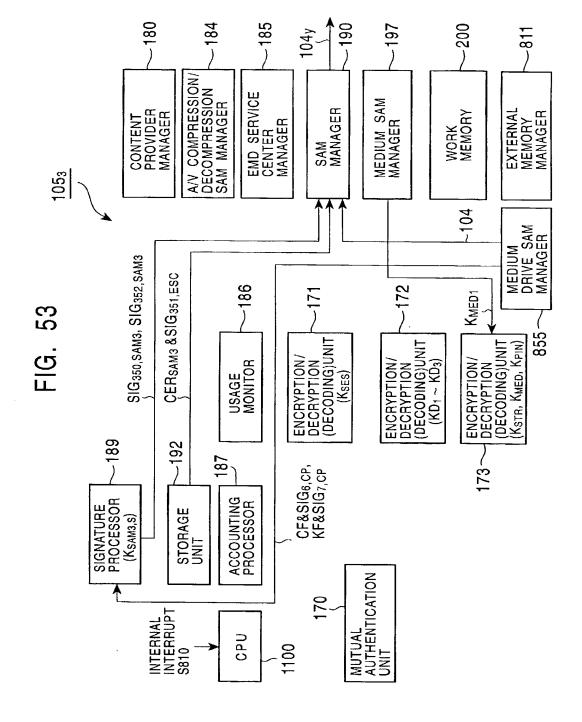
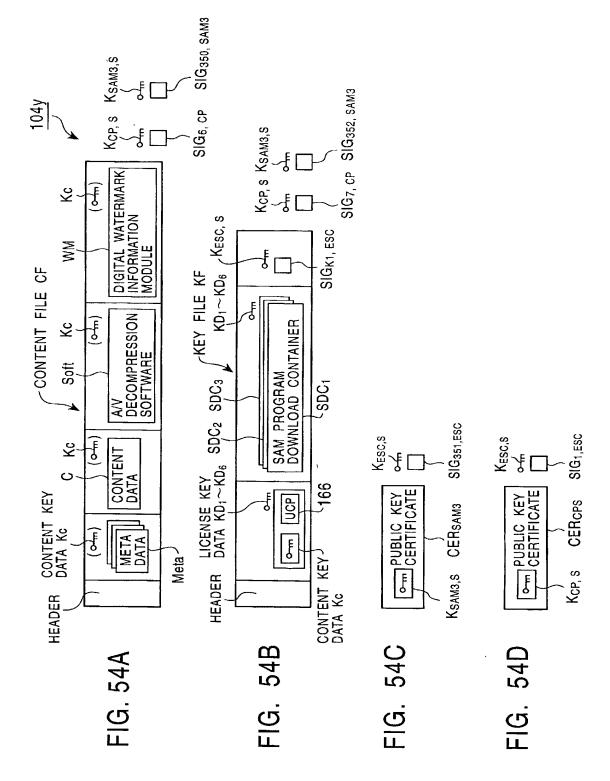
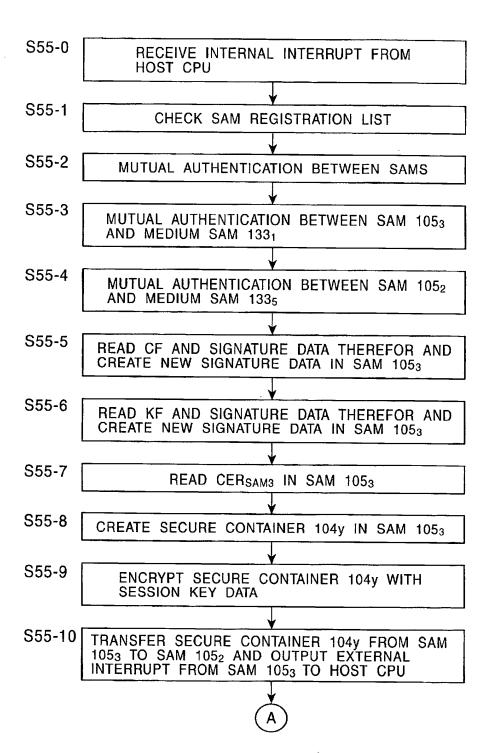


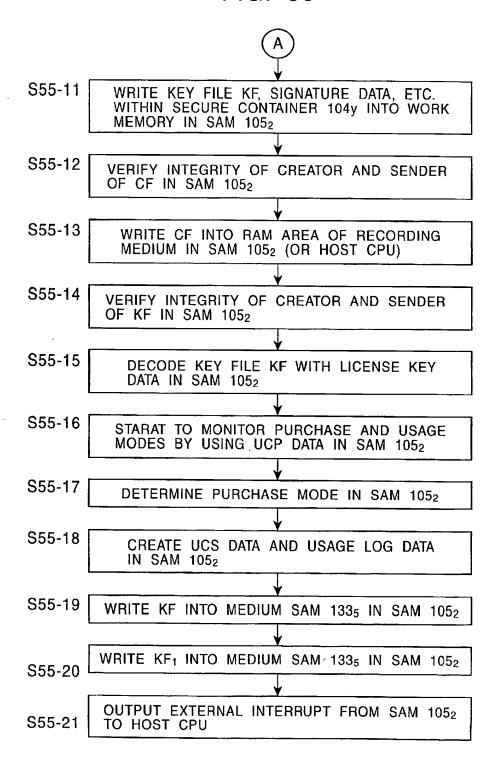
FIG. 52











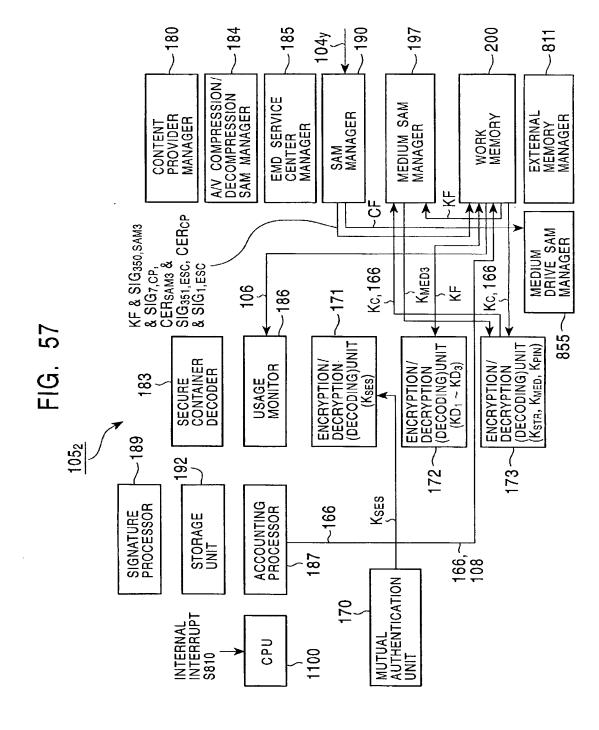


FIG. 58

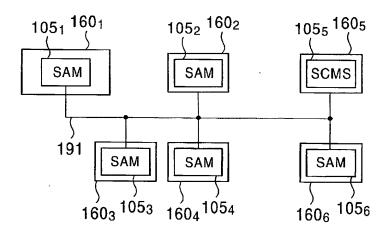
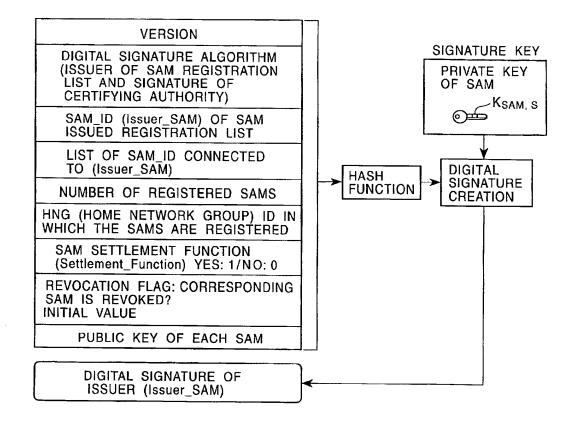
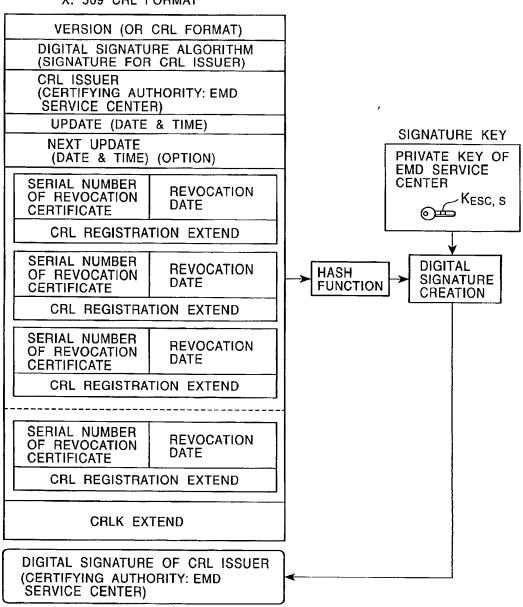
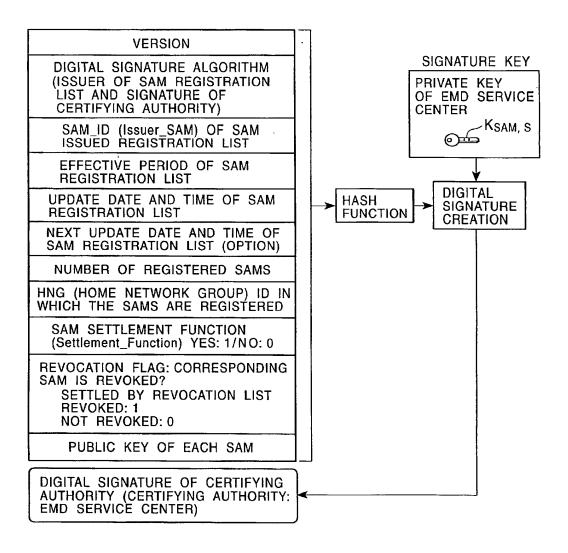


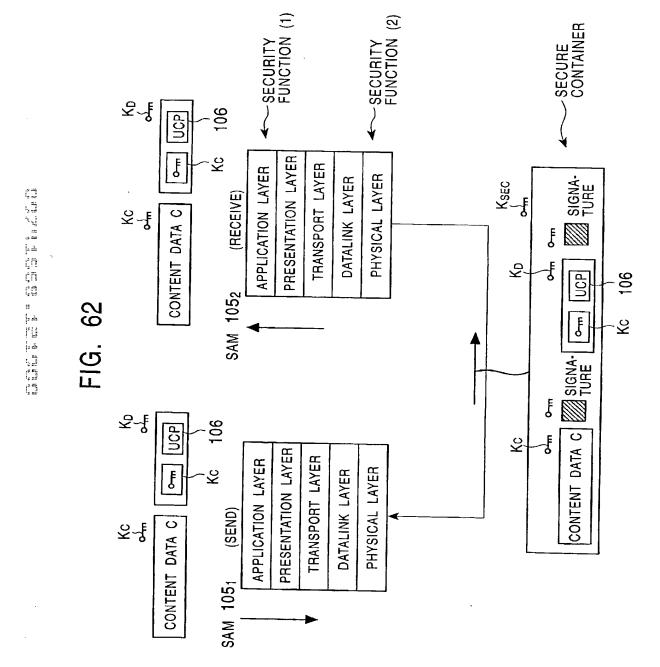
FIG. 59



#### X. 509 CRL FORMAT







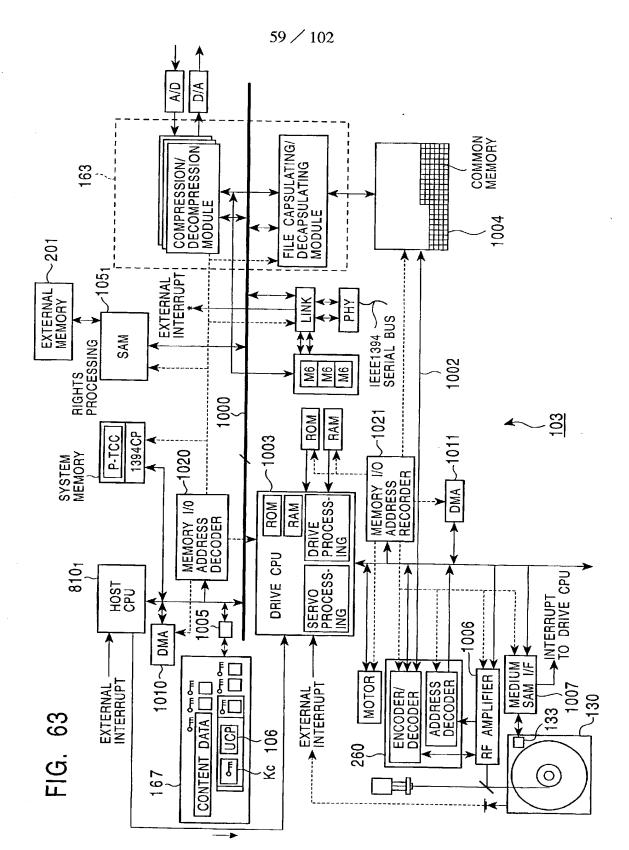


FIG. 64

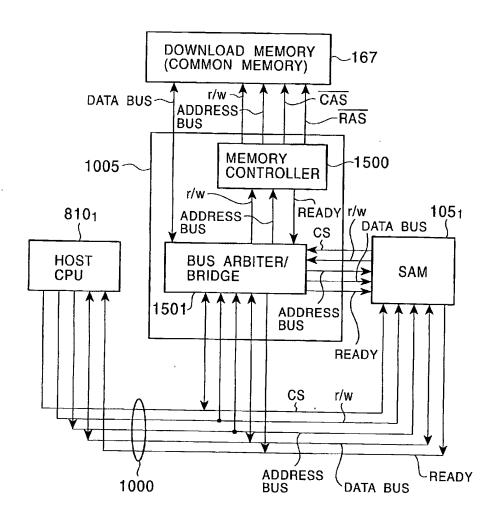


FIG. 65

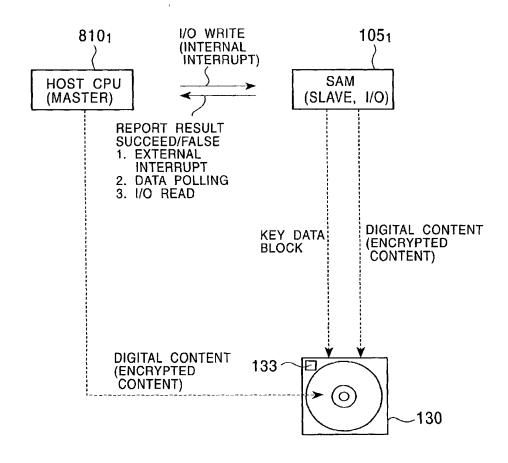


FIG. 66

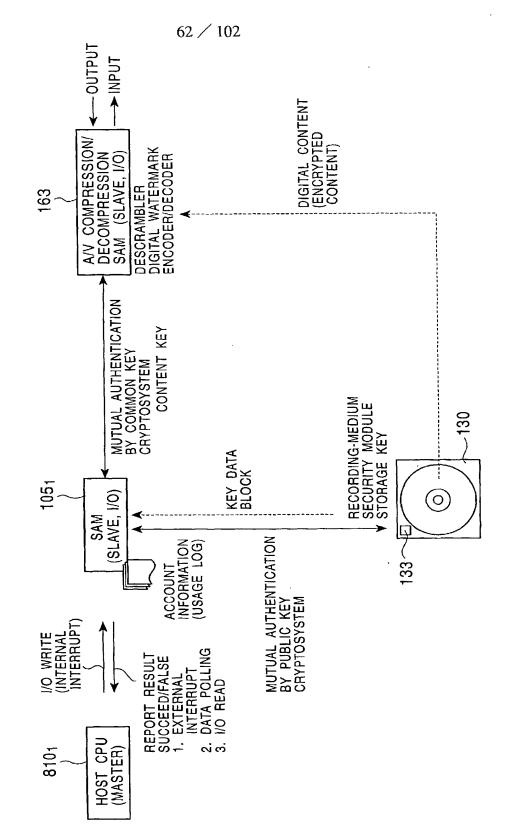


FIG. 67

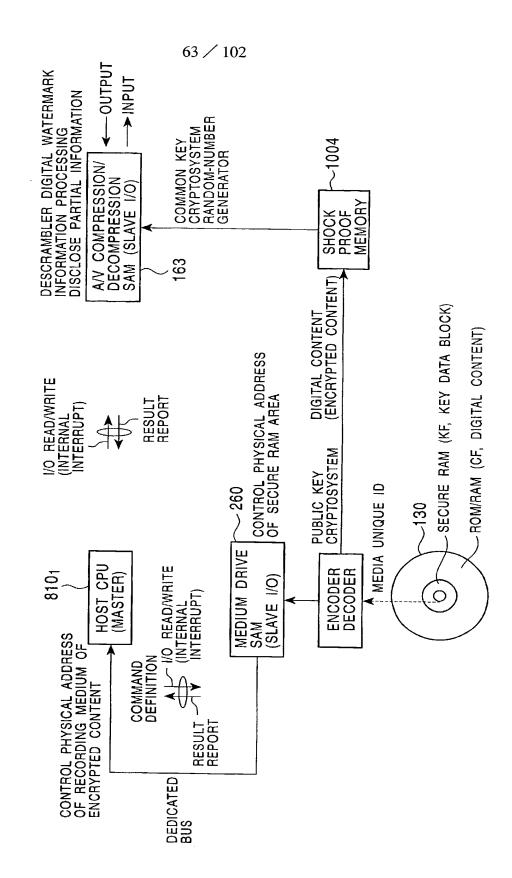


FIG. 68

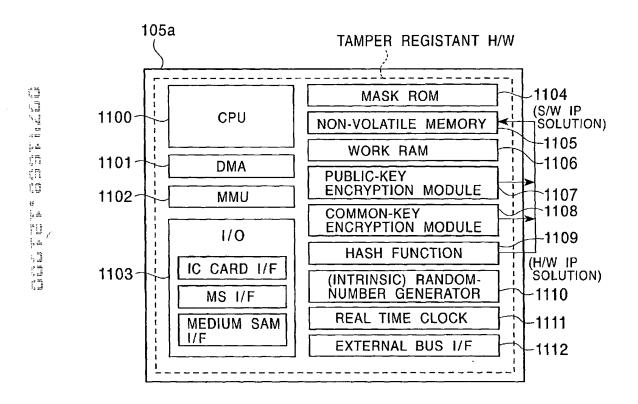
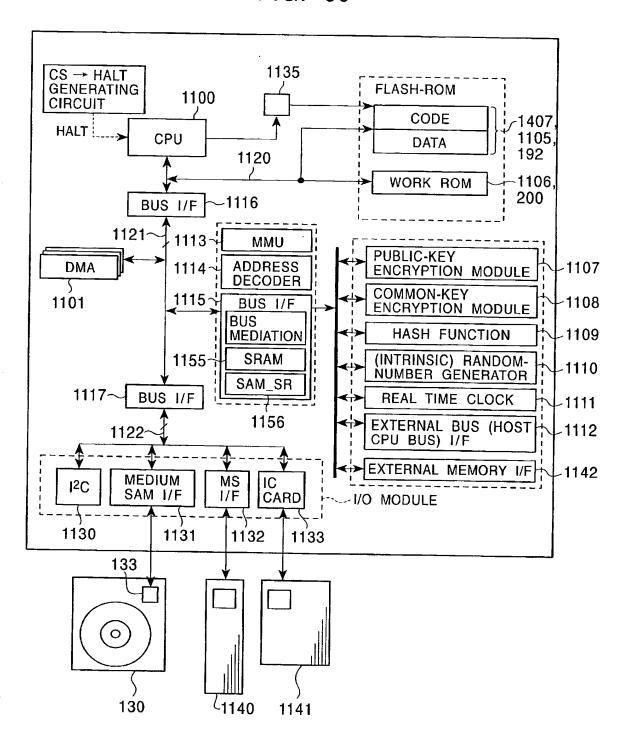


FIG. 69



Company of the Compan

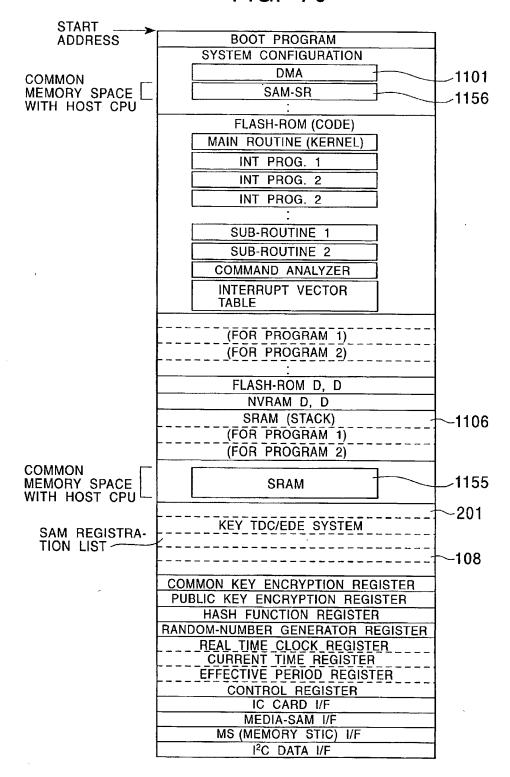


FIG. 71

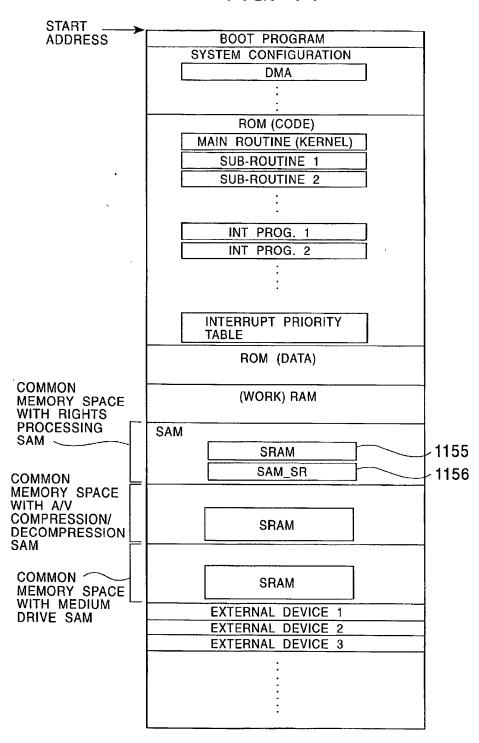


FIG. 72

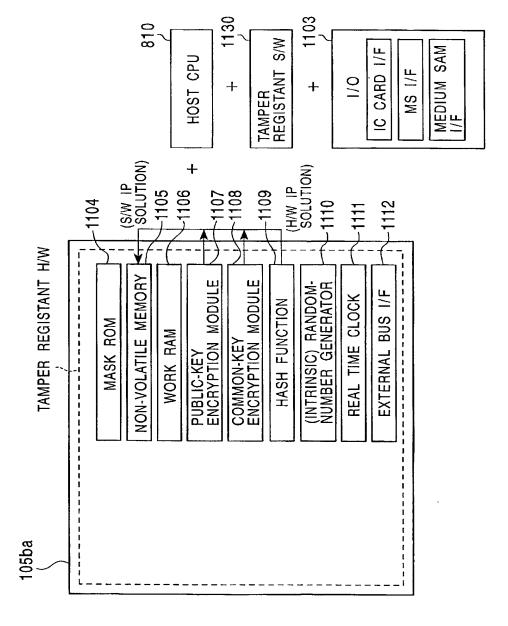
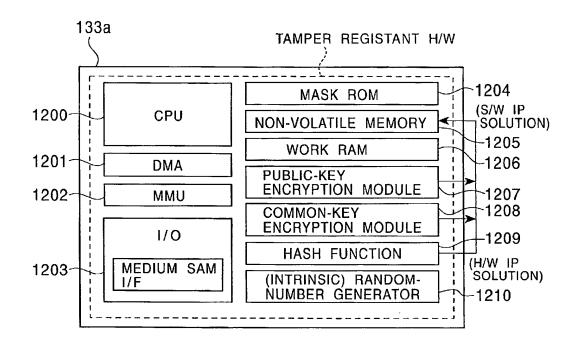


FIG. 73



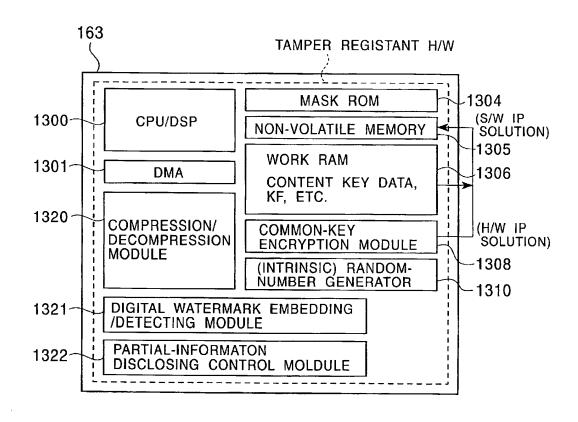
MEDIUM SAM ID		
STORAGE KEY K <sub>STR</sub> (MEDIUM KEY K <sub>MED</sub>		
PUBLIC KEY OF THIRD PARTY (EMD SERVICE CENTER)		
PUBLIC KEY OF ROOT CA		
PUBLIC KEY CERTIFICATE OF MEDIUM (X.509)	SAM	
PUBLIC KEY AND PRIVATE KEY OF MED	IUM SAM	
REVOCATION LIST (UPDATED VALUE)	,	
RIGHTS PROCESSING (PROFITS DISTRIB DATA ENTITY ID WHICH RECEIVES PRO	UTION) FITS	
MEDIUM TYPE - MEDIUM TYPE INFORMATION - ROM OR RAM		
PHYSICAL ADDRESS INFORMATION OF KEY FILE KF (REGISTER SPACE)	CHECK VALUES	CIPHERTEXT BY LICENSE KEY KD
CHECK VALUES (MAC)	VALUES	LICENSE KET KU
KF OF CONTENT NUMBER #1	_	
KF OF CONTENT NUMBER #2		
KF OF CONTENT NUMBER #3		
KF OF CONTENT NUMBER #4		
KF OF CONTENT NUMBER #5	CHECK	
•	(MAC)	CIPHERTEXT BY   LICENSE KEY KD
	(WAC)	LIGHTOR RET RE
-	ļ	:
-		
KF OF CONTENT NUMBER #n	-1	
CHECK VALUES (MAC)		

MEDIUM SAM ID		
STORAGE KEY KSTR (MEDIUM KEY KMED)		
USER ID		
PASSWORD		
FAVORITE INFORMATION		
SETTLEMENT INFORMATION (CREDIT CAR	D NO.)	
ELECTRONIC MONEY		
PUBLIC KEY OF THIRD PARTY (EMD SERVICE CENTER)		
PUBLIC KEY OF ROOT CA		
PUBLIC KEY CERTIFICATE OF MEDIUM S. (X.509)	AM	
PUBLIC KEY AND PRIVATE KEY OF MEDI	UM SAM	
REVOCATION LIST (UPDATED VALUE)		
RIGHTS PROCESSING (PROFITS DISTRIBUTED DATA ENTITY ID WHICH RECEIVES PROF	ITION) ITS	
MEDIUM TYPE  • MEDIUM TYPE INFORMATION • ROM OR RAM		
PHYSICAL ADDRESS INFORMATION OF KEY FILE KF (REGISTER SPACE)	CHECK VALUES	CIPHERTEXT BY
CHECK VALUES (MAC)	VALUES	LICENSE KEY KD
KF/KF <sub>1</sub> OF CONTENT NUMBER #1		
KF/KF <sub>1</sub> OF CONTENT NUMBER #2	<u> </u>	
KF/KF <sub>1</sub> OF CONTENT NUMBER #3		
KF/KF1 OF CONTENT NUMBER #4		
KF/KF <sub>1</sub> OF CONTENT NUMBER #5	CHECK	
	VALUES	CIPHERTEXT BY
:	(MAC)	LICENSE KEY KD
:		
·		
KF/KF <sub>1</sub> OF CONTENT NUMBER #n CHECK VALUES (MAC)	-	

MEDIUM SAM ID			
STORAGE KEY K <sub>STR</sub> (MEDIUM KEY K <sub>MED</sub> )			
PUBLIC KEY OF THIRD PARTY (EMD SERVICE CENTER)			
PUBLIC KEY OF ROOT CA			
PUBLIC KEY CERTIFICATE OF MEDIUM SAM (X.509)			
PUBLIC KEY AND PRIVATE KEY OF MEDIUM SAM			
REVOCATION LIST (UPDATED VALUE)			
RIGHTS PROCESSING (PROFITS DISTRIBUTION) DATA ENTITY ID WHICH RECEIVES PROFITS			
MEDIUM TYPE  • MEDIUM TYPE INFORMATION  • ROM OR RAM			
<b>.</b>			

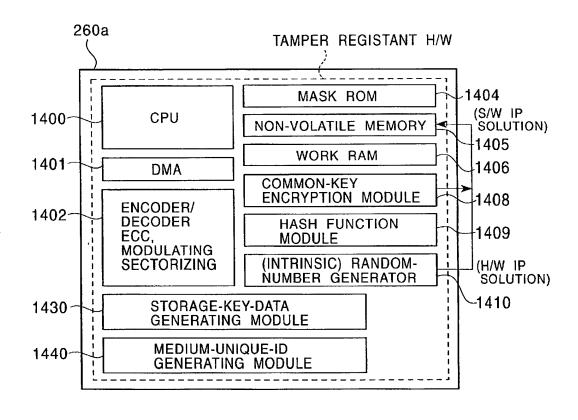
MEDIUM SAM ID STORAGE KEY K <sub>STR</sub> (MEDIUM KEY K <sub>MED</sub> ) USER ID PASSWORD	
USER ID	
PASSWORD	
FAVORITE INFORMATION	
SETTLEMENT INFORMATION (CREDIT CARD NO.)	
ELECTRONIC MONEY	
PUBLIC KEY OF THIRD PARTY (EMD SERVICE CENTER)	
PUBLIC KEY OF ROOT CA	
PUBLIC KEY CERTIFICATE OF MEDIUM SAM (X.509)	
PUBLIC KEY AND PRIVATE KEY OF MEDIUM SAM	
REVOCATION LIST (UPDATED VALUE)	
RIGHTS PROCESSING (PROFITS DISTRIBUTION) DATA ENTITY ID WHICH RECEIVES PROFITS	
MEDIUM TYPE  • MEDIUM TYPE INFORMATION  • ROM OR RAM	
PHYSICAL ADDRESS INFORMATION OF KEY FILE KF (REGISTER SPACE)  CHECK BY STORAGE	
CHECK VALUES (MAC) VALUES KEY KSTR	
KF/KF <sub>1</sub> OF CONTENT NUMBER #1	
KF/KF <sub>1</sub> OF CONTENT NUMBER #2	
KF/KF <sub>1</sub> OF CONTENT NUMBER #3	
KF/KF <sub>1</sub> OF CONTENT NUMBER #4	
KF/KF1 OF CONTENT NUMBER #5 CHECK CIPHERTEX	
VALUES   VEV KOTE	GE.
- (MAC)	
•	
KF/KF <sub>1</sub> OF CONTENT NUMBER #n	
CHECK VALUES (MAC)	

FIG. 78

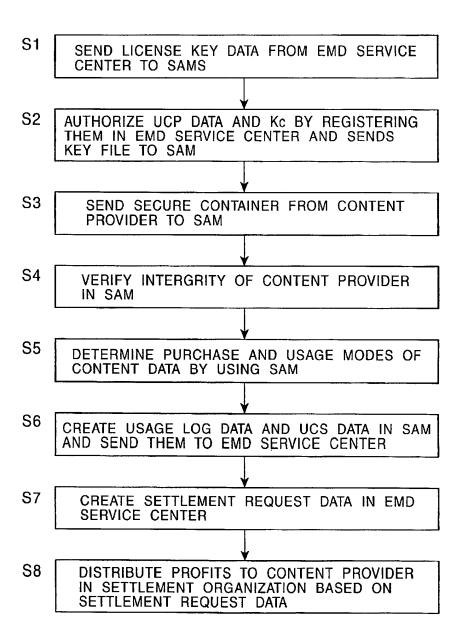


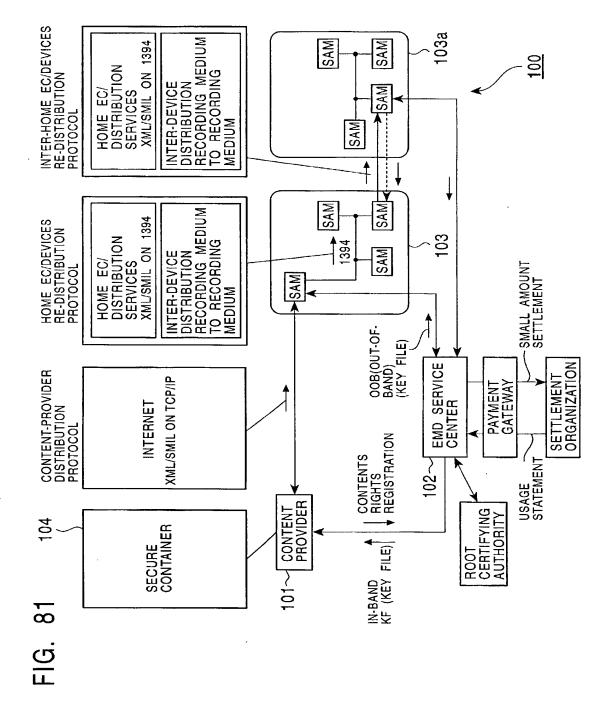
THE BUILDING THE WAS T

FIG. 79



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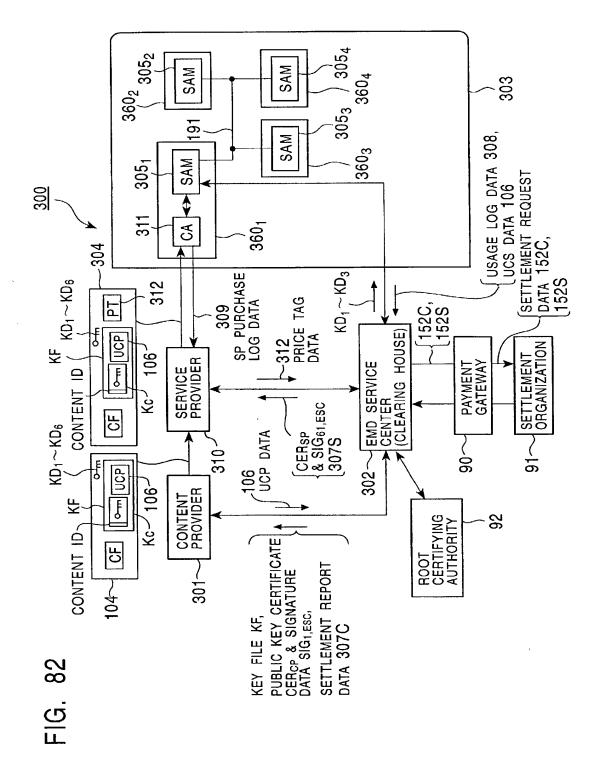
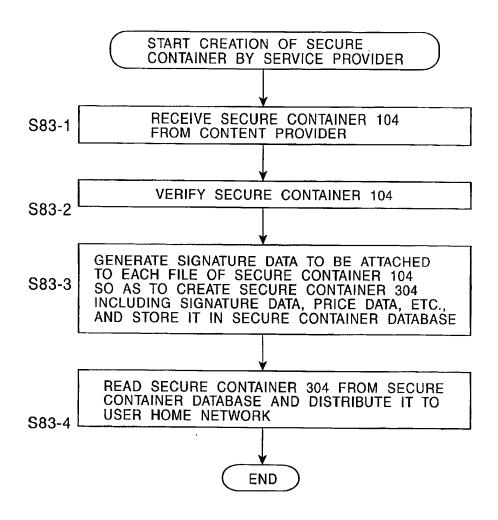
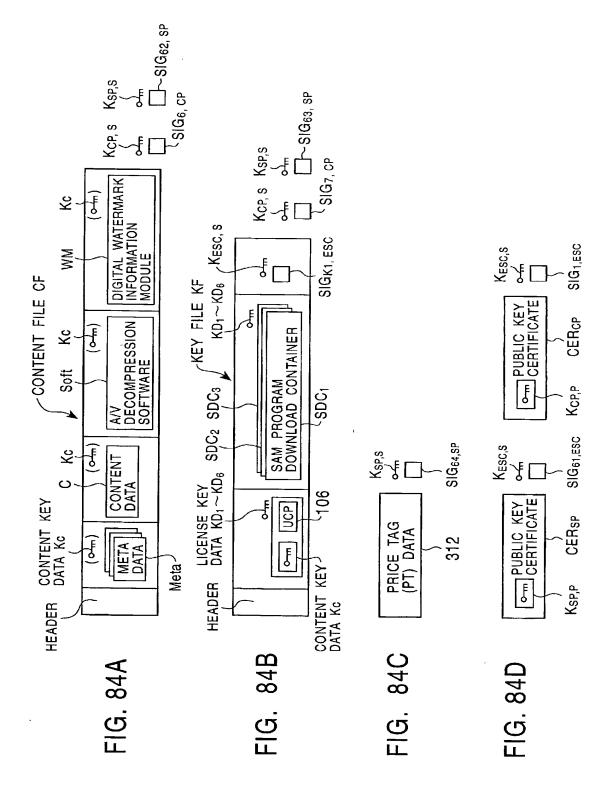
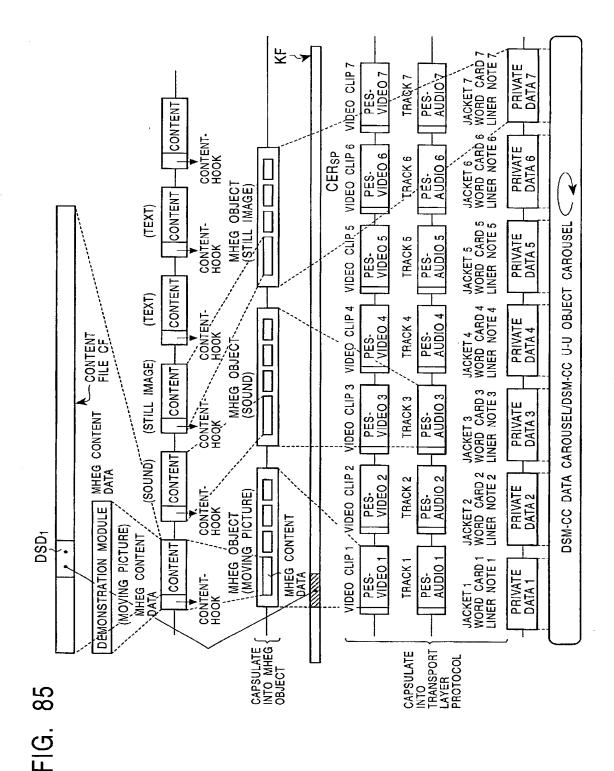


FIG. 83

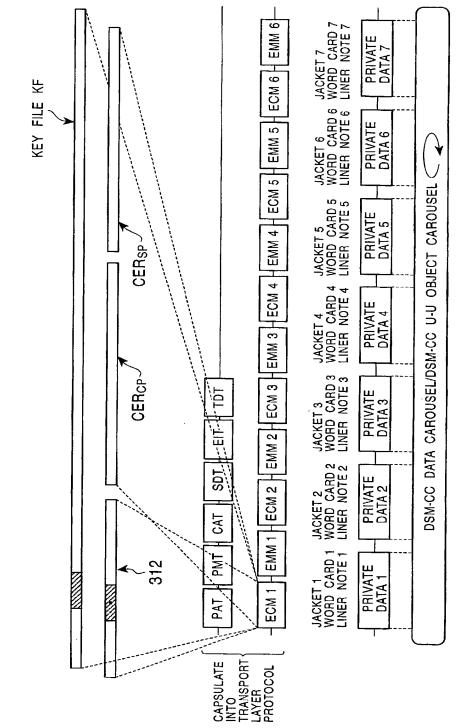






CONTRACTOR OF THE CONTRACTOR O

FIG. 86

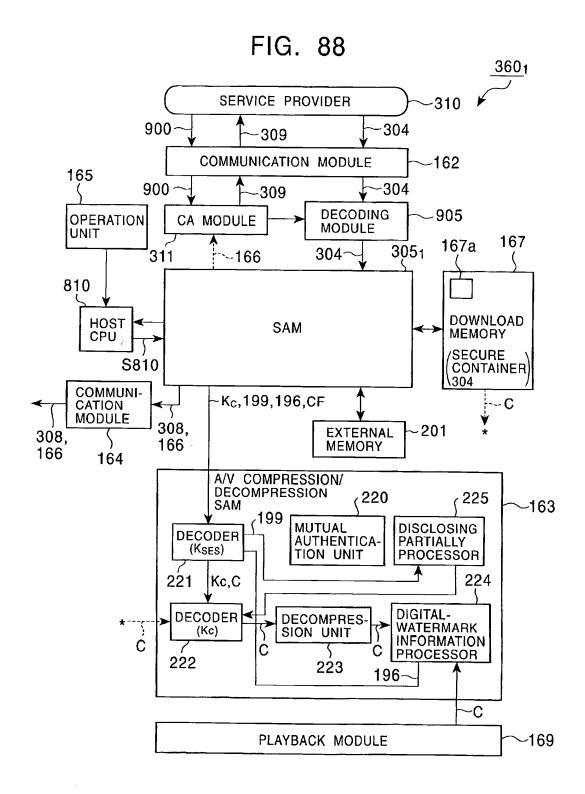


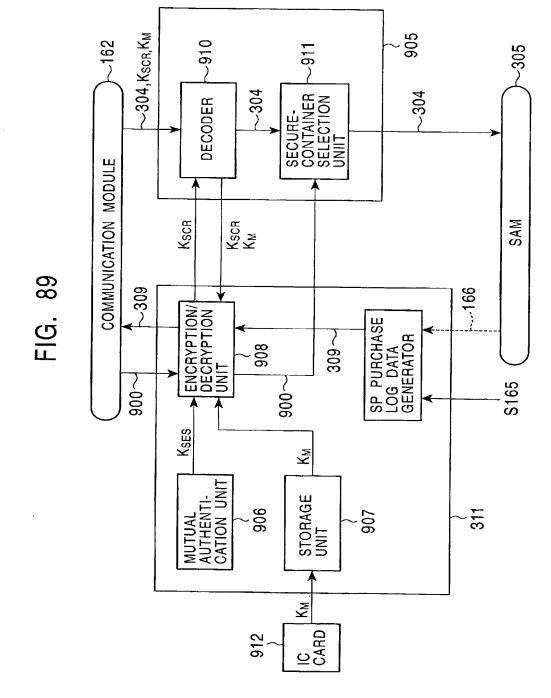
SUPPLY LICENSE KEY DATA TO CONTENT PROVIDER AND SAM

ISSUE PUBLIC KEY CERTIFICATE DATA DER<sub>CP</sub>, CER<sub>SP</sub>, CER<sub>SAM1</sub>  $\sim$  CER<sub>SAM4</sub>

CREATE KEY FILE KF

PERFORM PAYMENT SETTLEMENT (PROFIT DISTRIBUTION BETWEEN CP AND SP) BASED ON USAGE LOG DATA







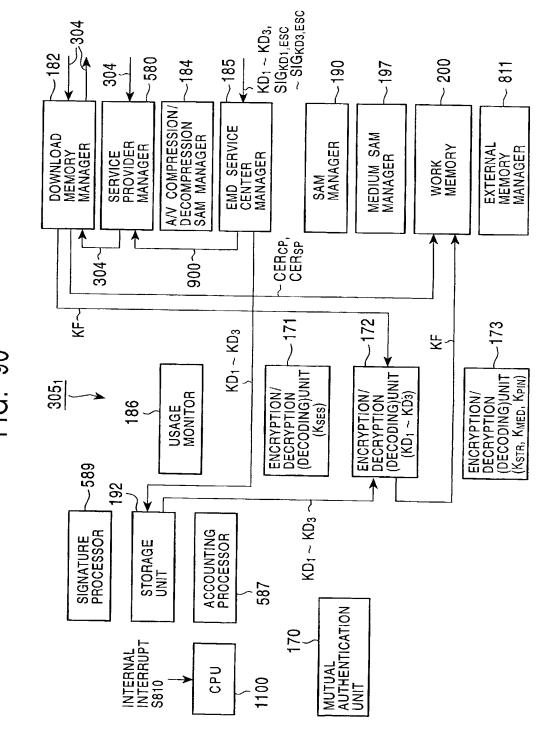


FIG. 90

CONTENT KEY DATA KC

UCP DATA 106

LOCK KEY DATA K<sub>LOC</sub> OF NON-VOLATILE MEMORY 201

PUBLIC-KEY CERTIFICATE DATA CER<sub>CP</sub> OF CONTENT

PROVIDER 301

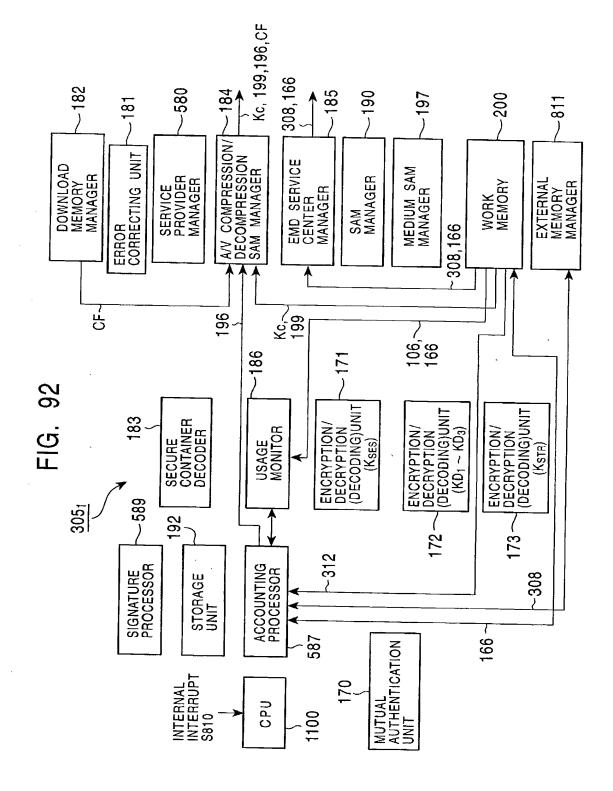
PUBLIC-KEY CERTIFICATE DATA OF CER<sub>SP</sub> OF SERVICE

PROVIDER 301

UCS DATA 166

SAM PROGRAM DOWNLOAD CONTAINERS SD<sub>1</sub>~SD<sub>3</sub>

PRICE TAG DATA 312



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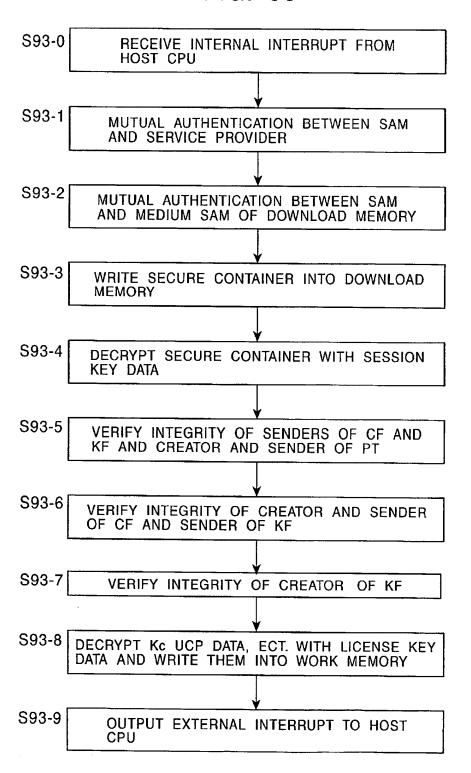
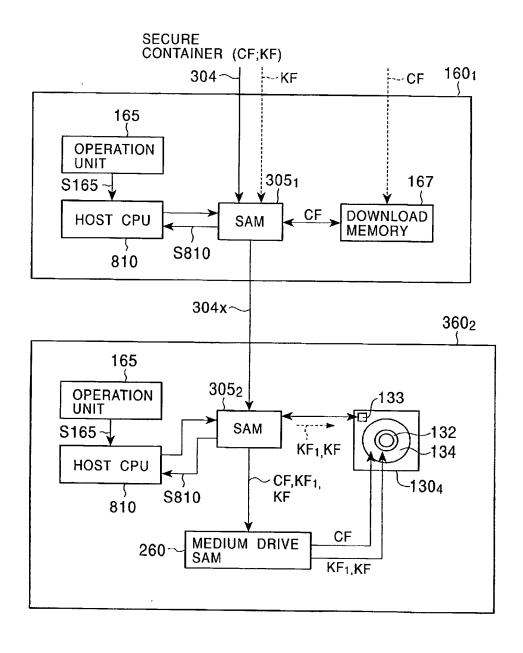
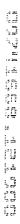
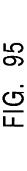


FIG. 94







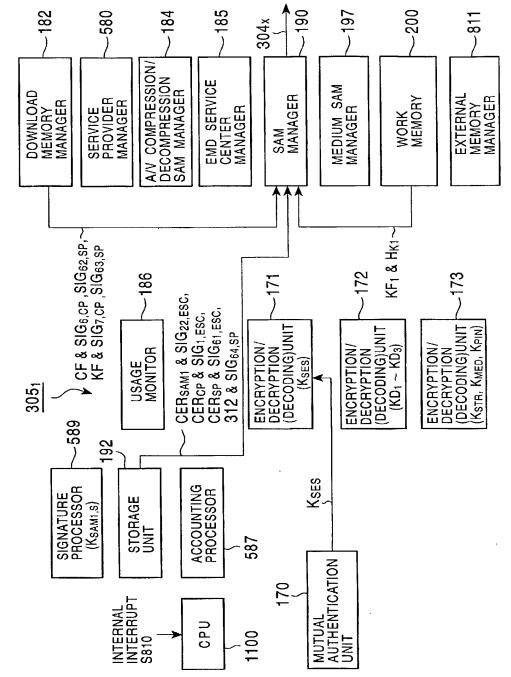
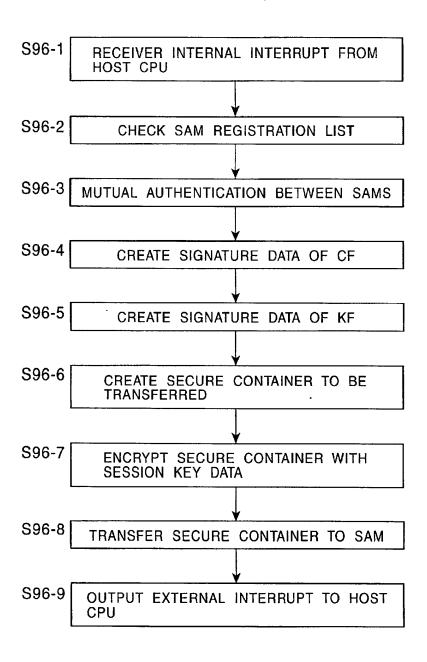
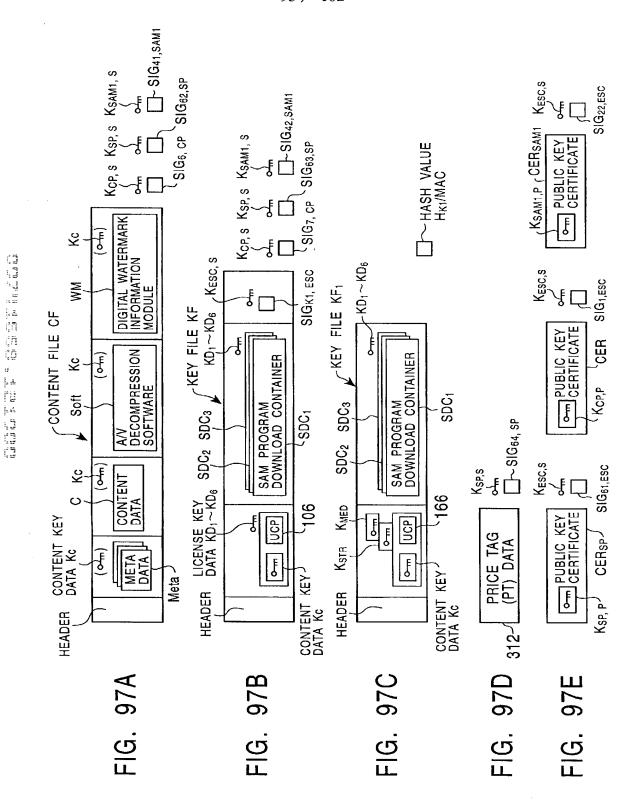
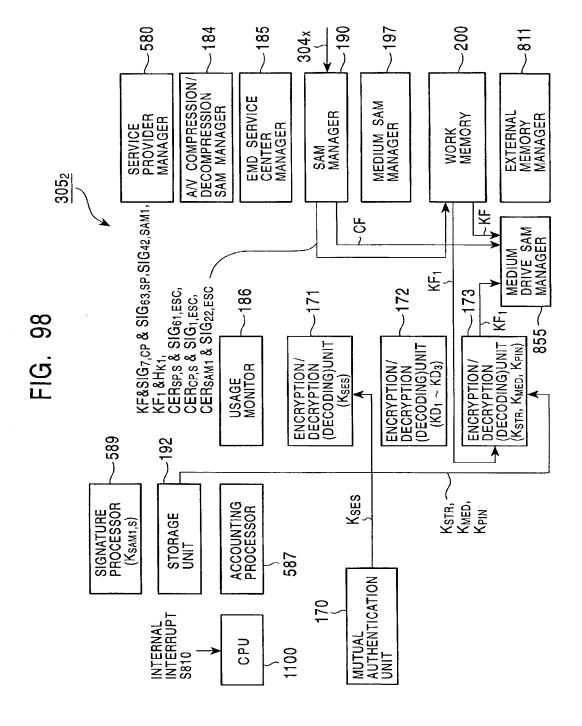


FIG. 96







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FIG. 99

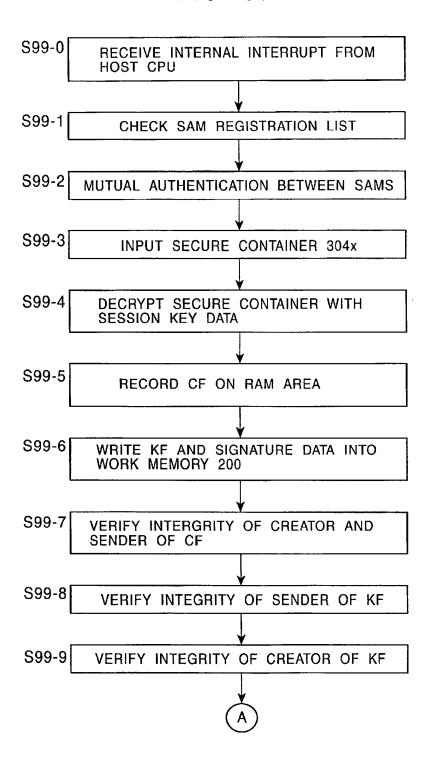
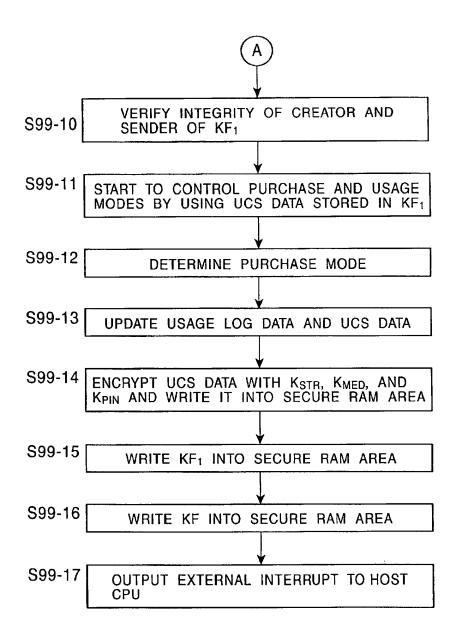
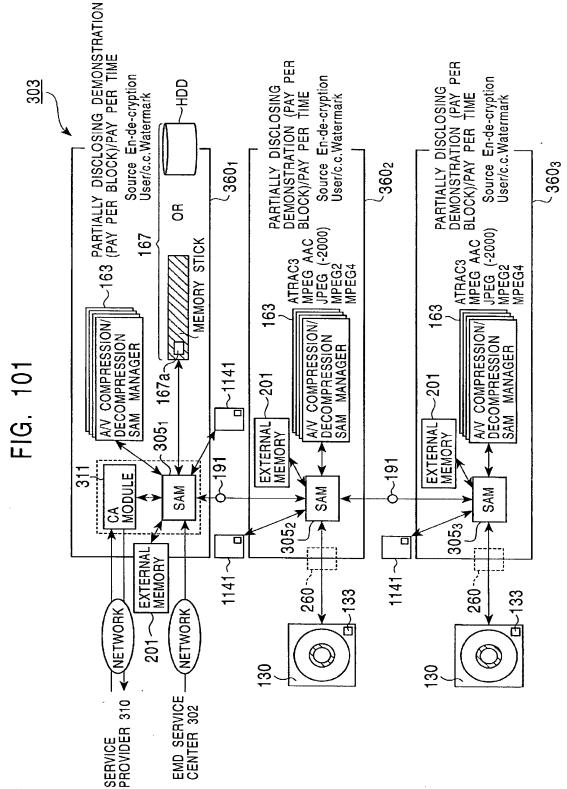
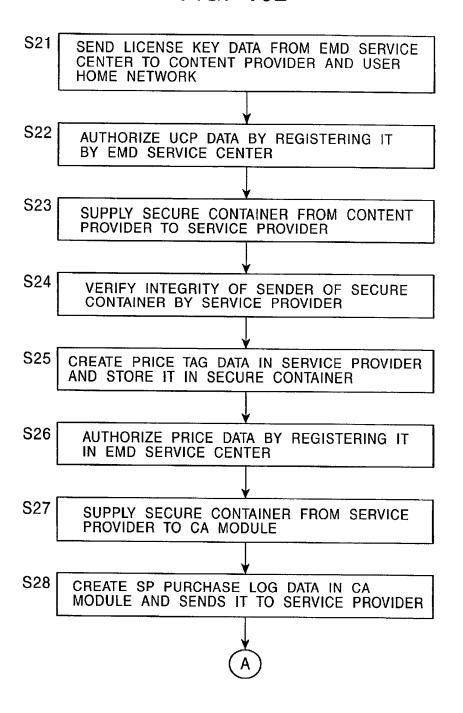
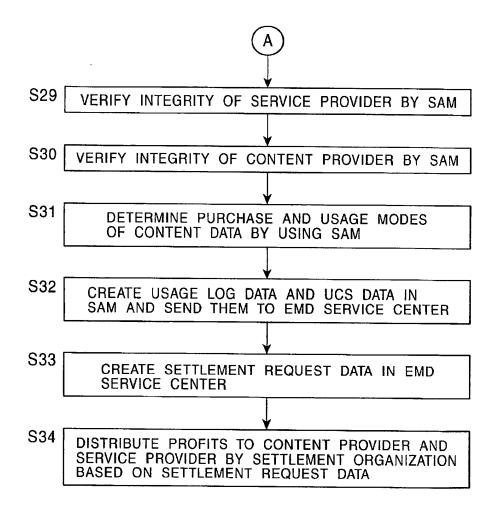


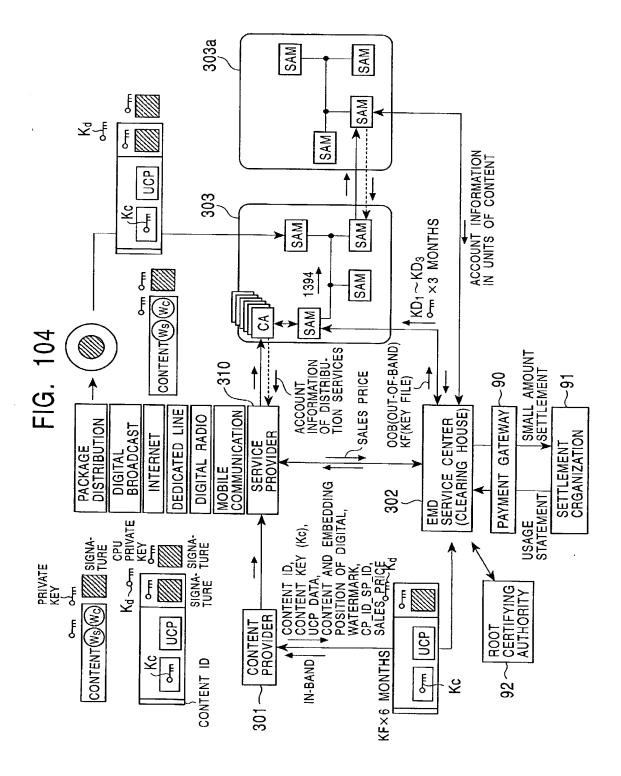
FIG. 100



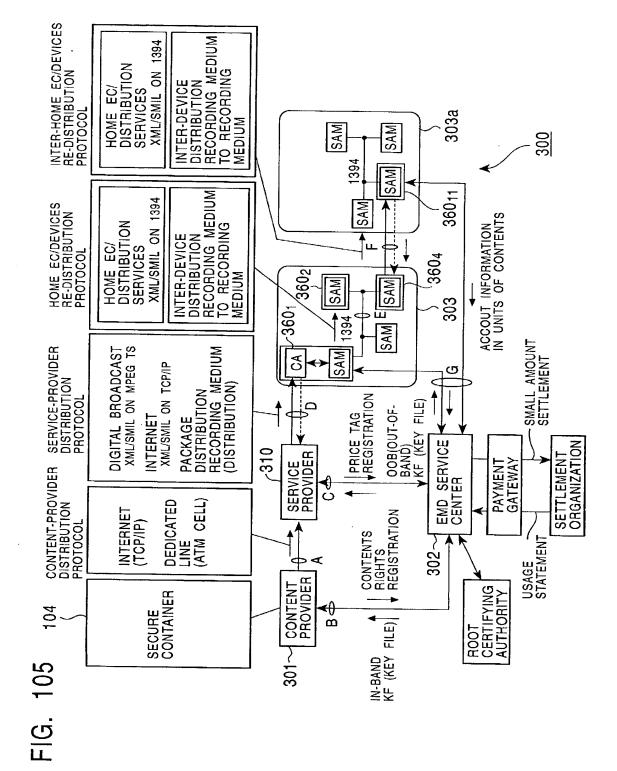








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